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THE INTERPRETATION OF PUEBLO CULTURE:
A QUESTION OF VALUES

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IT CAN BE TAKEN as a general rule that intensive research upon the same preliterate people by a variety of ethnologists gives rise to considerable controversy and disagreement over the nature of fundamental institutions and cultural expressions. Things which are accepted verbatim about groups reported on by single field workers are subjected to considerable scrutiny and argument when the area is opened up to additional members of the profession.

Studies of Pueblo Indians—especially the Hopi and Zuñi—are instances of the operation of this rule. Controversies of long-standing over the relative definitions and composition of lineages, clans, and phratries are common; certain types of marriage, particularly cross-cousin marriage, have been equally debated; the kinship system has furnished considerable fuel for the argument over the relationship of terminology and social features. On the whole, such disputes are highly technical and concern only the inner circle of specialists. In most cases they have no great significance for wider philosophical and theoretical issues in social science.

A controversy over somewhat different issues and having a more direct importance for broader problems will be discussed in this paper. In a series of publications appearing during the past few years[1] two principal interpretations

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1 See references throughout the footnotes of this article for the most important papers. In addition a partial bibliography of equally relevant articles may be cited here:

R. Bunzel, *Introduction to Zuñi Ceremonialism* (Forty-seventh Annual Report, Bureau of American Ethnology, pp. 467-544, 1932).

W. Dennis, *The Hopi Child* (New York, 1940).

A. E. Kennard, *Hopi Reactions to Death* (American Anthropologist, vol. 39, pp. 491-496, 1937).

K. A. Wittfogel and E. S. Goldfrank, *Some Aspects of Pueblo Mythology and Society* (Journal of American Folklore, vol. 56, pp. 17-30, 1943).

of the basic dynamics of Pueblo[2] society and culture have gradually emerged. These two interpretations have appeared not entirely as explicit, formal, theoretical positions, but more as implicit viewpoints within the matrix of methodological and empirical research on Pueblo communities.

As in the case of most other controversies, the respective adherents tend to imply, if not claim directly, that their respective interpretations are more "correct," "fundamental," and the like; there is no argument over or challenging of fact. In most cases the contrasting parties work with the same raw data. Hence the disagreement is purely one of manipulation of facts rather than of contradictory sets of facts.

The two perspectives are not to be viewed as polarites in diametric opposition. There is considerable coöperation in research and interchange of concepts and conclusions,[3] and in many cases the difference in viewpoint is not clear-cut. Yet the difference is there, and none of the ethnologists concerned have yet answered these questions: Can the two interpretations be held simultaneously, or are they contradictory; and, Are the differences a result of choice of problem, choice of fact, or of differing values held by the respective workers?

In the background of the controversy lie the criticisms of Benedict's and others' interpretation of Pueblo culture as "Apollonian," which often were not explicit denials of the truth of her characterization, but rather pointed out that there was another side to the story and that her method contained unexpressed value-orientations.[4] In a sense this older phase of the difference in perspective goes to the heart of the problem; namely, if interpretations of the same fact differ, must this not in part be a consequence of differing values?

I wish now to describe, by paraphrasing, the two viewpoints:

1. Pueblo culture and society are integrated to an unusual degree, all sectors being bound together by a consistent, harmonious set of values, which pervade and

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2 The literature actually covers only Hopi and Zuñi, but there are certain indications that the problem includes the Eastern Pueblos also. I will not attempt to discriminate carefully between Hopi and Zuñi, since the similarities are sufficient to permit generalization at the level of this paper. I wish to disavow any implication that I am setting myself up as a Pueblo expert, since I am merely examining published materials from the standpoint of logical analysis. My actual acquaintance with the Pueblo Indians consists of three Sun dances at Hopi villages and two hours in Zuñi.

3 E. g., the Goldfrank-Josephs collaboration (E. S. Goldfrank, *Socialization, Personality, and the Structure of Pueblo Society*, American Anthropologist, vol. 47, pp. 516-539, 1945).

4 E. g., Li An-che, *Zuñi: Some Observations and Queries* (American Anthropologist, vol. 39, pp. 62-76, 1937), pp. 68-69; specifically in his criticisms of Benedict's analysis of Pueblo leadership. Li also criticises Kroeber's analysis of the men's attitude toward houses in the same vein.

homogenize the categories of world view, ritual, art, social organization, economic activity, and social control.[5]   Man is believed to have the ability to act freely and voluntarily in ordering his own affairs and fitting them into an harmonious universe. The outcome tends to be virtually a fulfillment of the ideal-typical folk-preliterate homogeneous, "sacred" society and culture. Associated with this integrated configuration is an ideal personality type which features the virtues of gentleness, non-aggression, coöperation, modesty, tranquillity, and so on.

In some analyses, this generalized ideal pattern is presented as the "real," that is, it is presented as lived up to more often than it is not.[6] In other writings the correct estimation of the ideal patterning is acknowledged, but qualifying materials from "real" patterns are added.[7] In still others, the ideal pattern is described as an ideal without *explicit* information as to its "real" manifestations or its consequences in other contexts of the society and culture.[8]

2. Pueblo society and culture are marked by considerable *covert* tension, suspicion, anxiety, hostility, fear, and ambition.[9] Children, despite a relatively permissive, gentle, and frictionless early training, are later coerced subtly and (from our viewpoint) brutally into behaving according to Pueblo norms. The ideals of free democratic election and expression are conspicuously lacking in Pueblo society, with authority in the hands of the group and chiefs, the latter formerly holding the power of life and death over his "subjects." The individual is suppressed and repressed. Witchcraft is covert, but highly developed.[10]

Like the first, this view is qualified in analysis in many ways, and as I have noted, is not necessarily in conflict at all points with the first.[11] What is appar-

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5 See L. Thompson, *Logico-Aesthetic Integration in Hopi Culture* (American Anthropologist, vol. 47, pp. 540-553, 1945) for the most recent expression of this perspective. Her paper will be used as the conceptual model in most of the discussion.

6 E. g., R. Benedict, *Patterns of Culture* (New York, 1934; reprinted 1945). She would now recognize other possibilities, of course.

7 E. g., Li An-che, *Zuñi*, and D. Eggan, *The General Problem of Hopi Adjustment* (American Anthropologist, vol. 45, pp. 357-373, 1943).

8 E. g., Thompson, *Logico-Aesthetic Integration.*

9 See Goldfrank, *Socialization, Personality, and the Structure of Pueblo Society* for the most recent exposition.

10 Titiev has shown that witchcraft lies at the bottom of much of what appears to be Apollonian among the Hopi. Hopi men do not like to assume chieftainship for a particular ceremony which has been dropped from the calendar because "the Hopi believe that a forward or aggressive person is a witch" (M. Titiev, *Old Oraibi: a Study of the Hopi Indians of Third Mesa*, Papers, Peabody Museum of American Archaeology and Ethnology, Harvard University, vol. 22, no. 1, 1944, p. 106). See also M. Titiev, *Notes on Hopi Witchcraft* (Papers, Michigan Academy of Science, Arts, and Letters, vol. 28, pt. 4, 1942).

11 E. g., L. Thompson and A. Joseph, *The Hopi Way* (Chicago, 1944), where elements of both views are represented, though not clearly analyzed in relation to each other.

ent, however, is a tendency among the workers on one side to avoid the conclusions and implications of the other, to "grind their own axes," so to speak. I believe, therefore, that the differences in interpretation, plus the relative avoidance by each of the views of the other, are evidence of a genuine difference in outlook and are not simply the result of conscious, objective choice of problem. I mean here that the social scientific research may have been directed and influenced in part by personal-cultural differences between the respective workers, and not merely by the division of scientific labor.

In order to suggest some possible approaches to the problem, I want to take up first the question of values or preferences represented in the two interpretations. I acknowledge the uncertainty and inconclusiveness of the imputations I may make, but I also believe that an inquiry of this sort—however preliminary—will have its value in stimulating further self-inquiry into the meaning of our cultural analyses in the wider culture of which they are a part.

The first view may be seen in a context of theory basic to much of anthropology, and which lays stress upon the organic wholeness of preliterate life in contrast to the heterogeneity and diffusiveness of modern civilization. One may trace this emphasis from the earliest American ethnological writings to the various manifestations of the configurational approach, and to Redfield's formal theory of the "folk society." This general viewpoint is in part an expectable outgrowth of the anthropological preoccupation with preliterate communities, in part traceable to certain perspectives in the culture of American social science.

In the latter case I refer to a general *critical* attitude of the social scientist toward the heterogeneity of modern life, and a fairly clear attitude toward the organic character of preliterate life as preferable.[12] Some direct statements of this value position can be found;[13] in other cases, one must perceive it more by

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12 The emphasis also appears strongly in the field of sociology, where a great many concepts like "social disorganization," "community," "social control," and so on have a basis in quasi-idealizations of rural society and culture.

13 E. g., E. Sapir's paper, *Culture; Genuine and Spurious* (American Journal of Sociology, vol. 29, pp. 401-429, 1924). See M. Tumin, *Culture, Genuine and Spurious: a Re-evaluation* (American Sociological Review, vol. 10, pp. 200-207, 1945) for an analysis of the value-orientation in Sapir's paper and the general problem it presents for cultural analysis. In a more general way, there is a large hint of the idea in the current stereotype of preliterate cultures as "simpler" than modern civilizations and therefore so much easier to study and learn from. In the case of Southwestern ethnology, these tendencies may often assume a special form conditioned by the pervading sense of mystery and glamour of the country itself. A good deal of ethnology and archaeology in the Southwest has been done with a kind of eager reverence for turquoise, concho belts, Snake Dances, and distant desert vistas, and while this need not

the frequency of the choice of and emphasis on problems which deal with it.[14] In this paper, I wish to make the imputation by studying the general linguistic atmosphere. For example:

Thus the Hopi have extended their harmonious, organic view of the universe logically and aesthetically through the world of nature and also through the world of man at both the personal and the the social levels. Combining acute observation and induction with deduction and intuition, they have worked the flux of experience with its multitudinous, apparently unrelated details into a world view which is a notable achievement not only in pragmatic utility, but also in logic and aesthetics. . . . Under relentless environmental pressures, the Hopi has become a specialist in the arts of logical thinking, logical living, and logical character building. . . he even grows corn with the consummate skill of the artist. . . . [15]

The choice of such words and phrases as "harmonious," "acute," "notable achievement," "logical," and "consummate skill" in this passage, is, I think, fairly good evidence of the possibility that the author approves of the Hopi configuration. There is nothing to be condemned in such approval—one only asks perhaps for a more conscious recognition on her part of the value orientation, plus some thought as to its probable influences on the analysis of her data.

As to what such influences *might* be, we can consider the following passage:

Actually the Hopi Way . . . sets up ideal conditions [in terms of external and internal pressures toward a single goal] for the development of an integrated system of social control, which functions effectively with a minimum of physical coercion, by fastening its internalization within the individual in the form of a super-ego or conscience consistent with the social goal.[16]

There are two things of importance here: (1) the statement that the Hopi configuration is imposed "with a minimum of physical coercion"; and (2) a generalized swallowing-down and obfuscation of the imposition of group will and authority upon the individual—"external and internal pressures," "fostering its internalization," "conscience consistent with the social goal," and so on. These can be viewed as circumlocutions of what the other approach calls "authority" and "totalitarianism."

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materially distort the scientific conclusions, it provides the worker with a *favorable attitude* toward whatever he may work with. This attitude is, I think, particularly noticeable in the Thompson paper cited frequently in this essay.

14 E. g., Frank Speck's *Naskapi: The Savage Hunters of the Labrador Peninsula* (Norman, Oklahoma, 1935).

15 Thompson, *Logico-Aesthetic Integration*, p. 552. See also Benedict, *Patterns of Culture* (1945 edition), pp. 116-119 and others.

16 Thompson, *op. cit.*, p. 546.

Now my preliminary conclusion is as follows: In this first, or "organic" theory of Pueblo culture, there is an implicit value orientation toward solidified, homogeneous group life. At least in the case of the writer used as an example, it appears possible that this preference-position is inarticulate and may influence her conclusions in such a way as to render certain features of the Hopi social system and culture less clear to the reader.

The second, or "repression" theory of Pueblo culture stresses the very features which the "organic" viewpoint elides or ignores. In regard to "physical coercion," Goldfrank emphasizes the severe physical and mental tortures of Hopi child initiation and socialization,[17] including long descriptions of the horror and rigor of these rites. To these are added a multitude of subtle techniques for coercing the child into the norms. Whereas Thompson views Hopi participation in work as an example of "harmonious" and spontaneous coöperative attitudes toward fulfillment of the universal plan of Nature,[18] Goldfrank states,

Large-scale coöperation deriving primarily from the needs of irrigation is therefore vitally important to the life and well-being of the Pueblo community. It is no spontaneous expression of good-will or sociability. What may seem "voluntary" to some is the end of a long process of conditioning, often persuasive, but frequently harsh, that commences in infancy and continues throughout adulthood.[19]

The point is that these views are not necessarily contradictory, but emphasize different aspects of Pueblo culture. The situation is made more complex by the fact that not only is there a difference in emphasis and choice of data, but that certain value orientations have intruded which influence the respective arguments in different ways.

While the "organic" approach tends to show a preference for homogeneous preliterate culture, the "repressed" theory has a fairly clear bias in the direction of eqalitarian democracy and non-neurotic, "free" behavior. There tends to be a rejection of the hyper-personalized, inverted, "thick" atmosphere of the small, homogeneous society, in favor of the greater individuation and accessibility of urban life. The preference is not nearly as evident as the other orientation—at least it is not so in the published literature. But observe this conclusion from Goldfrank's paper:[20]

It is, then, the "deeply disciplined" man, both at Hopi and at Zuñi, who is so desired and so necessary to the proper functioning of the community. Emotional

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17 Goldfrank, *Socialization*, pp. 525-532. See also Eggan, *General Problem*, pp. 360, 369-370; Li An-che, *Zuñi*, pp. 69-72.

18 Thompson, *Logico-Aesthetic Integration*, pp. 541, 546.

19 Goldfrank, *Socialization*, p. 519. See also Li An-che, *Zuñi*, p. 66.

20 Goldfrank, *op. cit.*, p. 535.

restraint, reserve, avoidance, or the need to reject is the price he pays for achieving his society's social ideal.

Note the phrase, "the price he pays"—in other words, to become an ideal Hopi a man must repress his spontaneity, originality, enthusiasm, out-goingness, individualism, and so on, and become neurotic.[21]   Clearly this is not a desirable situation in the eyes of the libertarian American anthropologist, who may have had his or her experiences with our own forms of coercion and who may be in process of rebellion against them.

I think something of this sort lay beneath Li An-che's observation of Bunzel's remark to the effect that Zuñi prayer is "not a spontaneous outpouring of the heart. It is rather the repetition of a fixed formula."[22] Li comments, "why . . . should 'spontaneous outpouring' . . . be . . . antithetical . . . to 'repetition'?" In Bunzel's case I think there may have been a tendency to follow a typical American value pattern which approves spontaneity, sincerity, originality and condemns rote repetitions as insincere, shallow, etc. But as Li points out, from a scientific standpoint it was not a question of the *form of prayer*, but rather the kind of cultural framework within which "feelings" take place. Bunzel unconsciously, and in a typically American-Western way identified "feeling" with "form."

Differences between the two points of view are also evident in the question of "environmental pressures." Both sides recognize the tremendous environmental difficulties faced by the Hopi, and the "successful" adjustment made to them. Thompson emphasizes man's "positive measure of control over the universe . . . the external world of nature";[23] "nature-man balance";[24] and the fact that "under relentless environmental pressure" the Hopi have become "specialists in logic," "artists," "experts,"[25] and so on.

Whether Goldfrank, Eggan, and others would grant all this I do not know, but what is apparent from their writings is an entirely different emphasis on the environmental question. Dorothy Eggan described the forbidding environment

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21 A parallel view is expressed by John Collier in his foreword to the Thompson-Josephs volume *(The Hopi Way)*: "The Hopi, thus making inner form and inner power of the limitations of their nature world, similarly have internalized their social limitations. The limitations are extremely severe. The Hopi have achieved peace, and not through policing but through the disciplines and the affirmations planted within each of their several souls. The achievement has been maintained across millenia and is maintained now. And the Hopi pay for their peace, severe payments" (p. 9). This statement illustrates in some respects the ambivalent point of view of the whole Thompson-Josephs volume—the goal, "peace," is exalted along with the world view, but the price of this achievement is hinted at as being a high one.

22 Quoted in Li An-che, *Zuñi*, p. 64.   24 *Idem*, p. 548.
23 Thompson, *Logico-Aesthetic Integration*, p. 541.   25 *Idem*, p. 552.

as productive of an attitude which I believe can be called "defeatist" (in Western culture); namely,

> Of course these sedentary people . . . worked out a religion designed to control the unappeasable elements.[26] But even this prop became a boomerang since their beliefs held no promise of virtue through suffering; rather *all* distress was equated with human failure, the consequence of "bad hearts."[27]

Goldfrank goes even farther, interpreting the religious pattern as a special response to agricultural needs; but even more significantly, the drastic Pueblo techniques for molding personality into "yielding" forms are seen as a result of the necessity to "achieve the coöperation necessary for a functioning irrigated agriculture."[28]

From Thompson and others we get a picture of Pueblo environmental adjustment as a kind of glorious fulfillment of a unique world view, a master-plan. From Goldfrank and others, the adjustment is seen as a difficult, harsh experience, determinative of those phases of Pueblo culture and society which seem repressive and authoritarian.

By way of final illustration:

The Hopi Way may be used as illustration of what can be interpreted either as an ambivalence on the whole question or as merely a less definite specimen of the organic viewpoint. On the matter of tribal initiation, Thompson-Josephs cite the whipping and its severity as a flat statement of fact; then explain,

> This ceremony, in which the Mother Kachina may be interpreted from one point of view as symbolizing the mother . . . illustrates dramatically the complementary functions of the maternal and paternal kin in steering the child along the road of life.
> . . . And finally, through the discipliners' castigating of one another, it shows that the adult pattern of social control is not one in which one group, namely the children, terminate it, but one in which each adult individual is expected to exercise a certain amount of control over the others.[29]

In other words, the whipping is seen here as an incidental means to an end. There is nothing about the coercive severity of the means, yet the means are taken account of.

In a chapter on "Hopi Hostility" written by Alice Josephs, we find an account of certain hostile behavior patterns; but consider the following:

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26 To Thompson, this is a feature of not very great importance in Pueblo religion. The fact that ritual "reaffirms symbolically the Hopi world view" (p. 549), she appears to feel is of greater significance.

27 Eggan, *General Problem*, p. 359.

28 Goldfrank, *Socialization*, p. 527.

29 Thompson and Joseph, *The Hopi Way*, p. 36.

To put it briefly, among the Hopi, not only work and spiritual activities, but even the emotional attachment to the various members of the group, father and mother included, seem to be consciously and practically under the direct, regulating influence of the society.[30]

This seems a curious method of avoiding a direct statement of coercion. What, one might ask, is "society" other than the collection of individuals who insist on obedience and order. The author seems to be saying, "Yes, there is hostility, but look how well it is controlled by society." Hostility becomes a kind of regrettable psychological artifact.

The feeling of ambivalence is strengthened by the passage which follows the above:

The child who does not submit and tries to form deeper attachments of his own choice will most likely run the risk of finding himself without response from the object of his unruly affection. Repeated disappointments of this sort will usually lead to abandonment first of the open manifestation of such emotions, then of further attempts to establish new attachments.[31]

This flat statement of a pattern which we might well call "cruel frustration" contrasts oddly with the almost laudatory descriptions of "the well-balanced and resilient character of the social structure . . . well integrated control system."[32]

In short one can find elements of both points of view scattered throughout *The Hopi Way*, and this reader must confess that he had difficulty seeing how the two really fit together. Stated flatly as they are, the two simply do not mix.

I believe it fairly clear, therefore, that over and above the objective choice of problem and method, there is some evidence of attitudes of approach ("organic" theory) and avoidance ("repressed" theory)[33] toward Pueblo culture. In cases of mixture or ambivalence, separate components of the two viewpoints stand out in a confused and unassimilated mixture, or the necessary facts of the whole case are not sufficiently interpreted.

Now, precisely what are the issues at stake in regard to the interpretation of Pueblo culture?

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30 *Idem*, p. 122.

31 *Ibid*.

32 *Idem*, p. 128.

33 I am not so sure of this. It is quite possible that the adherents of the "repressed" approach are rejecting those features of Pueblo culture they emphasize simply because they like the rest of the culture so well that they wish to be "frank" and "objective" about the whole. To decide such questions one would need to interview the various anthropologists on both sides.

Lacking any close familiarity with Pueblo research, it is very difficult for me to assess the various specimens from the standpoint of excellence of field work and general scientific operations. As far as I know, the workers on both sides of the question are careful students of culture; they hold respectable jobs, have had considerable field experience, and are accepted within the academic fraternity as active professional anthropologists.

Their work on Pueblo culture, we have every reason to believe, has been done with due respect for basic rules of scientific method for the collection of data, and it is also highly probable that the actual field data collected by all would represent a highly homogeneous mass. This homogeneity would also hold true for the broadest generalizations and interpretations—in re social organization, technology, ritual forms, ideologies, and so on.

In other words, it is difficult to explain the difference in viewpoint from the standpoint of "good" and "bad" ethnology.

If, however, we attempt to appraise not the data and collection of data, but rather the suggestions as to conceptual tools for manipulation of the data, a somewhat different picture appears.

The "organic" approach can be charged with the following:

(a) The sin of omission of certain important sets of data; namely, those having to do with the severity and authoritarianism of Pueblo socialization processes. The "organic" point of view tends to avoid the apparent fact that the unique Pueblo homogeneity arises in a severe conflict process which is drastically suppressed, and from this standpoint I think we must award a laurel to the "repressed" school for facing the reality of the situation and seeing the process as well as the end product.

(b) A tendency to distort or misrepresent some facets of the Pueblo configuration. As Titiev notes: [34]

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34 M. Titiev, *Review of "The Hopi Way"* (American Anthropologist, vol. 48, pp. 430-432, 1946), p. 431. The failure to tell the whole story, and to avoid or distort certain features of it, is best represented in the initiation situation. A study of any of the various accounts of Hopi initiation ceremonies leaves no doubt of the traumatic effect they must have upon the child. These ceremonies last for nine days, during which time the boys are under the domination and "rigid discipline" (Titiev, *Old Oraibi*, p. 139) of elders, supernatural beings, and ghosts, who subject them to bewildering and terrifying experiences. On the night of the Kwan ceremony the entire village is shut off from the outer world, and the spirits of the dead, along with bands of Kwan and Horn men, race through the streets with horrifying noises. The effect of this "night of mystery and terror" (*idem*, p. 135) on the boys can be imagined—the point is that because of them everyone in the village becomes involved in this incredible and dangerous business. All of what happens in the kivas is not yet known but Titiev's remarks clearly indicate the strenuous psychological shock involved, with or without

Dr. Thompson, for instance, exhibits an unfortunate tendency to distort various items taken from the literature A girlish pursuit game, somewhat comparable to following-the-leader, is magnified (p. 58) into a faithful portrayal of "the guidance role of the mother and the difficult and centripetal life course of the Hopi girl . . . ." Moreover, in an effort to stress the cohesiveness of Hopi society, Dr. Thompson omits all but a casual reference to the split of 1906 that tore Oraibi to bits . . . etc.

(c) A tendency to make the interpretation in the long run an entirely personal, subjective affair. The *extreme* configurationist approach, which the "organic" approach represents, tends to assume the validity and demonstrability of its concepts and then use them on specific sets of data in an effort to reveal the "inner meaning" of these data. Thompson does not tell us what "logico-aesthetic integration" *is*, or where it fits into a general corpus of culture theory, or why she chose it as a major conceptual tool. Lacking the sound documentation of a *Balinese Character*, or the careful conceptual manipulation of a *Navaho Witchcraft*, a configurationist approach must inevitably slip into a personalized impression.

What I am saying here is that all things considered, one is more likely to have scientific faith in the viewpoint which tries to see the whole picture and evaluate its various parts. But this is by no means the whole story. For beyond the issue of scientific completeness and validity lies a further question.

Let us assume that some of the difference in viewpoint stems from the fact that the respective authors have not published all their data or analyses of it, and that therefore if the "organic" group were to let us in on all their materials, their interpretation would not differ significantly from the other approach. Even if this were so—and I doubt it—it would be equally evident that the respective authors *choose* certain aspects of their data and conclusions for imme- diate publication. And further, the general controversy—if it can be called such—has been in progress for some years. Surely in this time the various differences would have been resolved if it were merely a matter of unequal publication.

The differences in viewpoint, therefore, cannot be explained entirely either on the basis of scientific goodness or badness, nor on the basis of publication differentials. Underneath both of these factors lies what I have already sug- gested may be a genuine difference in value orientation and outlook in the feeling

physical injury: "What befalls the initiates in the presence of this weird assembly of living Hopi, visibly 'dead,' and unseen spirits, no white man can tell with assurance; but from the general context I think we may reasonably conjecture that in some manner the novices are ceremonially 'killed' . . . " (*idem*, p. 136).

about, the reaction toward, Pueblo society and culture in the light of the values in American culture brought to the scientific situation by the anthropologist.

For even if the methodological defects in the current "organic" approach were corrected, this group would still lay most of its emphasis upon the organic, horizontal, pervading world view. There is nothing "wrong" about this—I am convinced that this world view actually exists—just as I am also convinced that Pueblo society achieves homogeneity by repressive measures.

It is not so much a question of poor versus good anthropology, but rather a matter of the particular stress laid upon certain sets of facts—which facts could be identical for both sides— and the emphasis placed upon certain theoretical views of the materials. These, in turn, are bound up with the value question already discussed. This is really a very complex affair and the moral, if any, is that in cultural studies we can all be equally objective in the collection and ordering and interpretation of facts, but since social science is a part of our culture, research gets tangled in our attitudes toward the material. Why should Benedict, Thompson, et al., choose the organic emphasis, and why should Goldfrank, Eggan, et al., choose the repressive emphasis? This question quite transcends the fact that both groups of anthropologists may be equally reliable field workers and capable culture analysts.[35]

Inspecting the value question more closely, I think the issue can be resolved into one of means and ends. To Thompson's way of looking at things, the end is the most important and significant factor; the "end" in this case being the unique and rather remarkable Pueblo world view. To her this phenomenon has rare beauty and aesthetic appeal, and one receives the impression that the means

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35 In a sense, this problem is part of the wider problem of "objective" as *versus* "cultural" approach in social scientific studies (cf. K. H. Wolff, *A Methodological Note on the Empirical Establishment of Cultural Patterns,* American Sociological Review, vol. 10, pp. 176-184, 1945, pp. 177-179). The chief characteristics of the latter as contrasted to the former are: an attempt at explicit, conscious recognition of the fact that all cultural studies proceed *through* rather than *around* the biases, values, and choices of subject of the researcher; and that scientific method is not a goal in itself but rather a technical problem. The problem of choice which is outlined above is thus seen by the "cultural" worker as one of the important determinants and conditioning agents in social scientific work, not as something to be ignored or somehow conquered. The merits of the respective approaches are by no means easy to decide upon as a final judgment about the nature of social scientific research; however, at the moment I do feel that the "cultural" approach, being more willing to recognize the social matrix of scientific investigation, is thus more liable, other things being equal, to have somewhat more insight into these questions of value. The "other things being equal" is important, however—the adoption of the "cultural" approach does not justify, as in the Thompson case, the ignoring of important methodological procedures and rigor.

of achieving this ideal really do not matter—at least she does not appear to be particularly concerned with them.

But to Goldfrank it is precisely the means that count—and that is *her* bias. She probably grants the organic, homogeneous, logico-aesthetic world view, and concerns herself almost entirely with the means for achieving this. These, to her, are the important factors; these are what the social scientist should study objectively. One suspects a kind of critical realism here, which contrasts sharply with the impressionistic, evocative approach of the extreme configurationist school.

Thompson and Goldfrank, then, clearly disagree over the respective values of means and ends,[36] and this question goes beyond any issue of scientific methodology, referring ultimately to current overt and covert value conflicts in our culture at large. Scientific anthropology is thus implicated in an on-going process in our own culture, and from this level of observation, it is "non-objective" and "culturally determined."

I do not believe, therefore, that we can definitely answer the questions, Who is right? Which emphasis is preferable? Who will decide? A decision on the grounds of scientific method alone does not provide an answer as to the "why" of choice of the different value positions, and this is the more fundamental and far-reaching question. Neither is it possible to say that one side or the other is less-influenced by values. Obviously Thompson is more subjective and possibly less aware of the influences upon her work, but at the same time we can show that the value orientation is just as marked in Goldfrank's work, only it is a different sort of value and one which happens to appeal strongly to the more literal-minded social scientist. It is possible that a "repressed" approach could conceal and distort to the same degree as do some specimens of the current "organic" approach.

The answers to these various questions can only be given in tentative form. First, the *fact* of influence upon anthropological research by values and personal preferences should be recognized and extraverted. At the present time we do not do so in sufficient degree. Secondly, as individual anthropologists we should be both more modest and more willing to think into and publish the implications and biases in our own analyses. I do not suggest an Olympian objectivity—

36 The further question—why do these two individuals possess these particular values—cannot be answered in this paper or any other logical analysis of the problem. To find out something of this sort one would have to interview the persons in question. Some interesting research might result from an inquiry into the possible correlations of wholeness-configurationist thinking and critical realism with contrasting personality types. The problem is by no means one of simple determinism, of course.

only a serious concern with the problem. Third, we must be willing to turn to logical analysis to help decide the merits of such a case as the one reviewed in this paper.

What I mean in the last sentence is simply this: I do not believe that it is possible to decide, upon scientific grounds alone—that is, by repeated visits to Pueblo communities—whether it is more correct to emphasize organic wholeness or repression. The interpretation of Pueblo culture in these terms is a reflection of preference and value and I do not see how this can be eradicated or corrected by collecting more facts and making more interpretations. Therefore it becomes a problem for the sociologist of knowledge to deal with. He can, with greater detachment, make a reflexive analysis of the meaning of the respective interpretations in the culture of which they are a part; he can seek out biases and stresses obviously not completely apparent to the researchers. There is no reason why they should be. If we were completely objective about our own writings we would never be able to write anything because we would be in a state of constant self-disagreement.

It is my opinion that this case has a strict parallel in another major area of controversy in contemporary sociology and social anthropology: the question of "caste" as applied to American Negro society. Here, as in the Pueblo case, we can observe two conflicting viewpoints: The Negro is a caste and he is not. Both sides can present abundant documentation and "proof"; both sides betray conscious and unconscious value orientations. The matter cannot be decided entirely on the basis of whose facts are the better—for the simple reason that the controversy's major dimension is not scientific method but values.[37]

What is perhaps most interesting—and not a little amusing—is that these controversies, so plainly a matter of value and preference, endure as long as they do without some objective attempt to sit down and realistically arbitrate the matter. The Puebloists have been firing their respective interpretations back and forth for a decade, yet none have seen fit to dig into the real issues—at least in print. It is not, perhaps, an easy thing to do, since it requires a good deal of self-objectivity and humility. I do not pretend to be much more willing to go through that than the next fellow.

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37 I am indebted to Kurt H. Wolff for suggesting the case of "caste."

MAZATECO HOUSE BUILDING[1]

GEORGE M. COWAN

THE TYPICAL MAZATECO HOUSE

THE BUILDING of a typical Mazateco house, nt²ià,[2] also called nt²iaškà (nt²ia- 'house', škà 'leaf'), has several features of special interest. In the first place the Mazateco house has a thatch roof with a long, shaggy, protruding ear

1 The data for this paper were gathered on three field trips to the Mazateco tribe of Mexico during the years 1943-46, under the auspices of the Summer Institute of Linguistics, Glendale, California.

The Mazateco tribe is located in the northern tip of the State of Oaxaca, Mexico. It is a member of the Popoloca-Mazateco language family. The tribe numbers 55,343, according to the 1931 census (1941 census figures not yet available). The writer lived in Huautla de Jiménez, the trading center of the tribe, a town of 3,351 population (1945 figures of local municipio), where most of the data were gathered, and from where several trips were made to other Mazateco villages.

2 The dialect is that of Huautla de Jiménez, the major dialect of the tribe. The symbols used in this paper represent the following phonemic norms.

	Labial	Alveolar	Alveo-palatal	Retroflexed alveo-palatal	Velar	Glottal
Voiceless stops		t			k	?
Voiceless affricates		¢	č	c		
Voiced nasals	m	n	ñ			
Voiceless fricatives		s		š		h
Voiced fricative	v					
Glide			y			
Lateral		l				
Flap		r				

Stops and affricates are voiced after nasals. One exception occurs in this paper. In sintà 'strip', a Spanish loan word as yet incompletely assimilated, the t remains voiceless.

š is less retroflex when occurring before a consonant.

h is nasalized before nasals.

v becomes unvoiced before h.

The vowel phonemes are i, e, a, o, and their nasalized counterparts į, ǫ, ą, ǫ. They are laryngealized after any consonant plus ?.

The tonemes are indicated as follows: ' high tone, – semi-high tone, ` low tone, absence of any mark semi-low tone.

at each end of the roof gable (see plate 12). The Mazatecos call these šòño nt²ià (šòño 'ear-his', nt²ià 'house'). These ears mark a thatch roof as being distinctively Mazateco.[3] Any Mazateco building of any sort, be it the chicken house, the corncrib, the shelter for the dog tethered in the field to frighten away animals that damage the crop, the horse shed, the roadside shelter for travellers, the kitchen, the home proper, the storehouse, or the town hall, if it has a thatch roof, will have two such ears. A thatch roof without ears, to a Mazateco, is as much a monstrosity as a dog without ears would be. No economy of effort or material can persuade him that they are not essential to the roof. If asked why he builds it that way he will usually answer that it is the custom, or that it looks good. If pressed for further reasons why such ears are always built on his roof he will agree that they do serve a practical purpose in that they permit the smoke from his fire to escape through the opening in the wall right under the ear, and that they do keep the rain from coming in through the same opening. Such a practical reason is lacking in the case of the dog shelter, the horse shelter and the wayside shelter for the traveller, which have no walls anyway, and also in the case of the home proper where fires are seldom if ever kindled. Nevertheless all must have their ears, for they are not Mazateco structures without them.

That which makes a house typically Mazateco is the thatch roof with its long protruding ears. That which makes the distinction between such houses is the material of which the walls are made. Granted a thatch roof house with ears (nt²iaškà), if the building has walls, then it may be called, depending upon the material in those walls: an adobe house, nt²iaši²ntè (ši²ntè 'adobe'); a rock house, nt²ialàhàò or nt²iašháo (làhàò 'rock', šháo 'masonry'); a plank house, nt²iayátèe (yátèe 'plank'), a general name for the two more specific names following; a thick-plank house, nt²iayátèethạ̀i̇̀ (-thạ̀i̇̀ 'thick'), if the wall is of sawn planks; a thin-plank house, nt²iayátèechoè (-choè 'thin'), if the wall is of wooden shakes or long shingles, hand-hewn by machete; a corn-stalk house, nt²iayáchái (yáchái 'a corn-stalk'); or a wattle-and-daub house, nt²iaši²ntèyá²mà (ši²ntè 'adobe', -yá- 'wood', -²mà 'hidden'), if the walls are of *carrizo* (a thin bamboo) packed with adobe. For pictures of these, see Plates 12-14. If the building does not have walls it will be called nt²iatìš²ànkiyáa (tìš²à 'open', -nki 'under', yáa 'wood'), a house open underneath. In addition to these descriptive

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3 The Popoloca tribe of the State of Puebla, Mexico, the other member of the same Popoloca-Mazateco language family, also has houses with a thatch roof with ears, according to Miss Eunice V. Pike, Summer Institute of Linguistics, who made a trip to the Popolocas in the fall of 1942. So far as is known to the writer, no other tribes in Mexico have this particular type of roof.

TYPICAL MAZATECO HOUSES

ABOVE: The ear of the roof. BELOW: Typical Mazateco houses; left adobe house with rock foundation walls; right, wattle-and-daub house, with spine-like ridge.
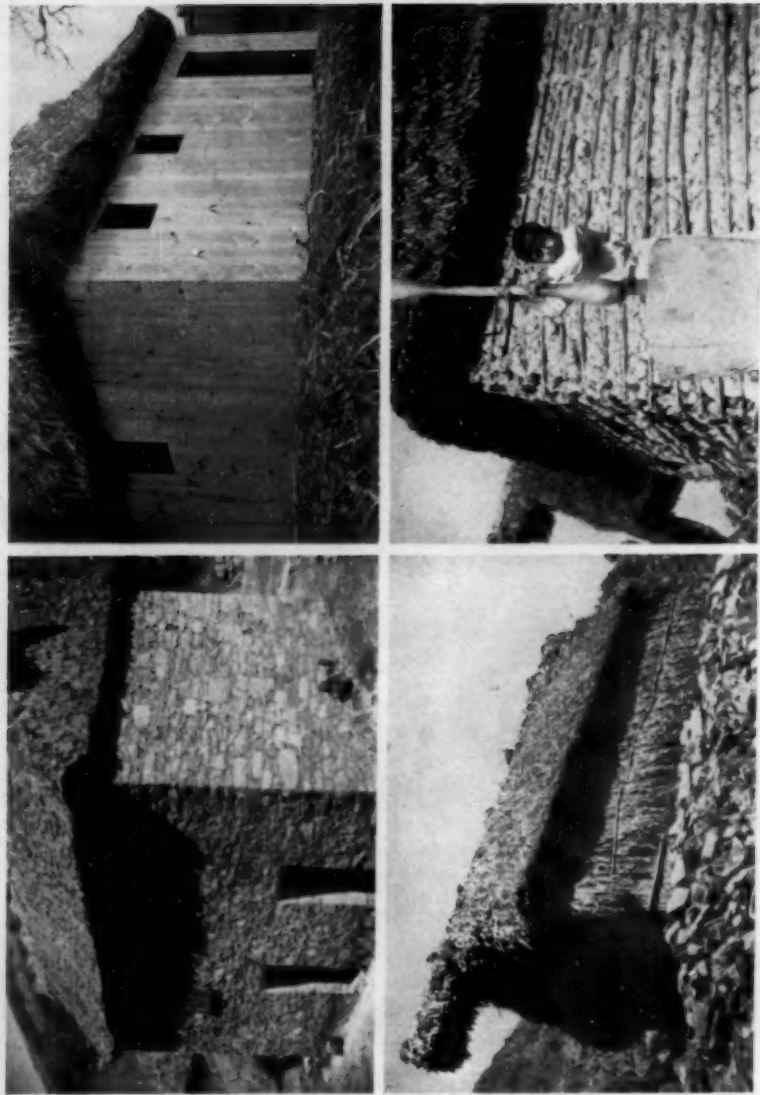
TYPES OF MAZATECO HOUSES

UPPER LEFT: Rock-wall house, at junction of trails (trail behind the house at upper floor level). UPPER RIGHT: Thick-plank house (the writer's house, just completed). LOWER LEFT: Corn-stalk house (note doubled corn-stalks on wall fastened with extra horizontal strip). LOWER RIGHT: Wattle-and-daub house (a kitchen).

names, buildings with special functions, regardless of whether or not they have walls, may often be designated by specialized functional names, as, for example: nt²iavasẹẹ̀ 'town hall' (-vasẹẹ̀ 'in the midst of'), nt²iačò 'animal shed' (čò 'animal'), ntòyáa 'jail', and nink²aà 'corncrib'.

A third point of special interest is that the entire roof structure is always tied together with nothing but bark or split-vine rope. In the case of daub-and-wattle and corn-stalk houses, this is also always true of the walls. It is frequently true of the walls of thin-plank houses but almost never so of the walls of thick-plank houses. Nails are quite commonly used now in building the walls of the plank houses. At least three kinds of rope are used: a thin brown bark which, rolled between the hands, forms a thin but tough rope, n²óthòà (n²ó- 'rope', -thòà from yáthòà, the name of the tree from which the bark comes); a thick, coarse bark which is used in narrow flat strips, n²óchòàyáyaò (-chòàyáyaò from yàchòàyá-yaò, the name of the tree from which it comes); and a long tough vine, about the thickness of a man's little finger, split down the middle, n²óto²vĩi (to²vĩi the name of the vine).

Also of special interest is the fact that in a typical Mazateco house, with the exception of adobe- and stone-walled houses, the roof is built first and independently of the walls.[4] The entire roof structure has its own supports which are in no way connected with or dependent upon the supports of the walls. The walls, with the exceptions noted above, never support the roof, but rather the roof is used to help support the walls. The building of the roof and walls are two entirely separate operations. For this reason they will be treated separately in the following pages. The roofing often precedes the walling of the house by many weeks or even months. A roof without walls is a common sight. Walls without roof is a very, very rare one, usually only a stone- or adobe-walled house in process of building.

Another point of interest is that the entire roof structure rests on, but is nowhere actually fastened to, the supports of the roof. The manner in which it rests upon its supports will be treated more fully in the actual description of the building of the roof which follows. The reason for this is that the ends of the supports rest in the damp ground and rot quickly. The supports therefore may have to be replaced as often as every three or four years. The roof proper lasts fifteen or more years. Inasmuch as the roof simply rests on its supports, it can very quickly and easily be raised, the rotten support removed and a new

4 In a few cases the adobe- and stone-walled houses are not exceptions. In such cases the support poles of the roof are set farther into the house in order to leave room for the thick adobe or stone wall to be built under the roof later.

one put in, the roof then being lowered on to the new support. On one occasion the author actually saw a roof "walking" up the mountainside through the corn fields and coffee groves. A certain man, wishing to build a new house, found an old one whose walls and roof supports had rotted and broken down but whose roof was still in quite good condition. He and his friends, lifting the entire roof off the old supports, carried it up the mountainside to the location for the new house, placed it on new supports, then proceeded to build a wall under it.

The dimensions of the typical Mazateco house vary considerably. The length may range from twelve feet to sixty feet or more. The width does not show such extreme variance. The typical Mazateco house is generally twelve or thirteen feet wide. It may, however, be as narrow as ten feet or as broad as twenty feet. The fifty degree or more slope that is necessary for the roof places certain physical restrictions on the width but not on the length of the house and undoubtedly accounts for the relatively stable width factor as con-trasted with the widely varying length. The height of the roof eaves above the ground may be anywhere from five to eight feet, six feet probably being the rough average.[5]

Mazatecos build a few houses with two stories, or occasionally even of three. The striking thing about such houses is, that, with the exception of a few stores and town halls, these are built into the mountainside so that each floor has its own ground level entrance, a front door on one level, a back door on the other (see Plate 13). Usually there is an inside ladder or stairway connecting the two floors.

For the typical Mazateco house all the materials used are indigenous, nails and hinges, when used, being exceptions. However, not all the materials are immediately available to every town. In the Huautla de Jiménez region, a large population is fast removing the last vestiges of large trees as year by year new areas are cleared for corn and coffee fields. As a result, all the larger poles and the planks needed in the building of a house must be brought in from other Mazateco towns, two in particular, San Miguel and San Lucas, supplying the greater portion of them. In Rio Santiago the people raise coffee to the almost complete exclusion of sugar cane and are dependent on neighboring villages for thatch, škàntàhai (škà 'leaf', ntàhai 'sugarcane'). Generally speaking, how-ever, enough sugarcane is grown around the various villages to furnish thatch

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5 The Mazatecos are reportedly the shortest tribe in Mexico. The men average about five feet in height. The women are correspondingly shorter. The only one inconvenienced by such low roofs is therefore the non-Mazateco.

for building needs. Clay suitable for making adobe is found everywhere. Rocks are more than plentiful, as many a Mazateco corn patch demonstrates. Bark and split-vine rope are also found practically everywhere, as is also *carrizo*. Long, dried corn stalks are, of course, supplied from local corn fields. The materials are either obtained direct from the land, in the local markets, or from merchants who deal in such things.

The raising of the roof is generally the occasion for a fiesta. Once all the necessary material has been collected the owner of the house invites his friends and relatives and the whole immediate neighborhood to come and help with the building of the roof. Usually great crowds come, so many that they get in each other's way. In an amazingly short time, a few hours at most, the entire roof structure goes up and the thatch is on. Beans, tortillas, coffee, cigarettes, and liquor are served to all who help. If it is the occasion of a reroofing the fiesta may last over two days, the first day being spent in taking the old roof off and the second in putting the new roof on. If, however, the owner of the house hires men to do the job, he pays them at a set wage per man per day of work and there is no fiesta.[6]

THE NON-TYPICAL MAZATECO HOUSE

In the preceding section it was pointed out that the thing which marked a house as typically Mazateco was its thatch roof with long protruding ears.

There are Mazatecos, however, who build and live in houses with other than thatch roofs. Some have corrugated sheet metal roofs, nt²ialãmìnà (lãmìnà[7] from Spanish *lámina* 'sheet'). Some have tile roofs, nt²iatēhà (tēhà from Spanish *teja* 'tile'). Others have roofs of a black, heavily oiled, corrugated pasteboard, nt²iakartǫǫ (kartǫǫ from Spanish *cartón* 'pasteboard'). These constitute less than two percent of all Mazateco houses. They are an indication of wealth on the part of the owner. A few private homes, larger stores, town halls, schools, churches, and municipal buildings are of this type.

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6 The building of the writer's own house, which is used as the basis for the following description, was placed in the hands of Eusebio Martinez, the landlord, who acted as foreman, purchasing the materials, hiring the men and superintending the actual building of the house. Six men completed the erection of the roof in two days at a labor cost of twenty-four pesos. The landlord, who spent a week gathering the materials and engineering the building of the house, was paid fifteen pesos.

7 Many Spanish words have been completely assimilated into Mazateco. Tonally, the stressed syllable of the Spanish word becomes semi-high tone in Mazateco. Syllables preceding the stressed syllable take semi-low tone. Syllables following the stressed syllable take low tone. The word loses its Spanish stress and takes a Mazateco stress on the last syllable of the word. Syllables ending in n in Spanish drop the n and nasalize the preceding vowel in Mazateco.

Several things mark these houses as nontypical. In the first place they are named by the Mazatecos according to that which distinguishes them from the typical Mazateco house, their non-thatch roof. They may have walls of adobe, rock, or plank, but the Mazateco will designate them consistently by the type of roof rather than the type of wall. It is when speaking of a typical Mazateco house in contrast to these nontypical ones that the Mazateco employs the more specific term nt²iaškà, 'leaf-house', rather than the more general name nt²ià, 'house.'

Secondly, it will be noted that the Mazateco name for each nontypical house is a compound noun with the second member a word assimilated from Spanish, in each case the word being the Spanish name for the material used. It is a case of cultural borrowing accompanied by linguistic borrowing and assimilation.

In contrast to the typical Mazateco house which is built entirely of indigenous material (one exception noted), the nontypical houses are roofed with material which must be imported. All the corrugated sheet metal and corrugated oiled pasteboard comes from outside the tribe. Almost all the tile comes from San Martín, an Aztec village outside the tribe. Some, but comparatively little, tile comes from Mazatlán, the Mazateco town from which the Mazatecos believe their tribe originally came.

Further, it is to be noted that the nontypical Mazateco houses are importations of a comparatively recent date. Tile has been in use for two or three generations, but in quantity only within the memory of the present generation. Sheet metal roofs have been introduced within the past twenty-five years. People of about thirty-five years can remember distinctly when the first houses with sheet metal roofs were put up. The corrugated pasteboard first came to Huautla de Jiménez in 1943, within the time of the writer's field trips to Mazateco territory.

BUILDING THE ROOF

The materials necessary for building the roof of a typical Mazateco house[8] twenty feet long, thirteen feet wide, with the eaves six feet above the ground[9]

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8 The writer's house, so far as the actual building and appearance of it goes, was typically Mazateco. Certain concessions were granted by the native workmen in that three windows instead of the usual one or two were cut in the wall, two extra pairs of posts and crossbeams were placed between the usual three pairs in order to permit the laying of a plank floor to the attic, and, because there was to be no fire inside the house, the usual thatch hole under the ear was filled in to prevent the wind from whipping through the house.

9 The native unit of measurement is the nankaà, which is the distance a Mazateco man can reach with outstretched arms, finger tip to finger tip, a "fathom." The house described was four nankaà long, two and one-half nankaà wide, one and "a little more" high. The

are: (1) one thousand bundles of dried sugarcane leaves for thatch. The leaves are about four feet in length and tied in tightly packed bundles, each bundle being as big or a little bigger around than the extended thumbs and first fingers of a man's hands can girdle. (2) Six uprights or posts, eight feet long, four and one-half inches wide, two inches thick. (3) Three crossbeams, thirteen and one-half feet long, four and one-half inches wide, two inches thick. (4) Six poles, for end rafters, eleven feet long, three to three and one-half inches in diameter. (5) Five poles: a longitudinal brace, to be centered at the eave-line, two wall plates, two horizontal rafter braces, each twenty feet long, three to three and one-half inches in diameter. (6) Two poles, to serve at the ridge, about fifteen feet long, two and one-half to three inches in diameter. (7) Eight poles, for diagonal braces across the rafters, thirteen to fifteen feet long, about two inches in diameter. (8) Two poles, as supplementary cross-rods, thirteen feet long, two inches in diameter. (9) Two poles, for gable-end horizontal braces, six feet long, two inches in diameter. (10) Fifty poles, for intermediate rafters, twelve feet long, two inches in diameter. (11) About one hundred and fifty light poles of *carrizo*, for horizontal thatch supports, ten to fifteen feet long. (12) About six dozen bundles of tree bark of two varieties for lashings, each bundle containing one strip three or four inches broad, or several narrow strips, the length varying all the way from three feet to three yards. (13) Two or three dozen nʔótoʔvīi about two yards long.

The Mazateco terms for these building materials are as follows:

1. škàntàhaì—sugar cane thatch [index number in Plates 15-17: 14]

2. yáshaì (yá- or yáa- 'wood', -shaì 'ʔ')—post [1]

3. yákìčò (-kìčò 'ʔ')—crossbeam [2]

4. yáhkò (hkò 'head-his')—main rafter [4]

5. yávhayaà (-vhayaà 'it goes along inside')—centered roof brace [3]
   yášoʔvaà (šoʔvaà 'embroidery')—wall plate [6]
   yáaȼée (-ȼée 'ʔ')—horizontal rafter brace [8]

6. yáaȼháa (-ȼháa 'ʔ')—ridge pole [13]

7. yáankóo (-nkóo 'ʔ')—diagonal brace between rafters [5]

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dimensions given are inside measurements with the walls on. For the convenience of the reader the exact measurements are given in feet and inches.

All dimensions of logs and poles are approximate. Many, when purchased, were longer than necessary and were trimmed to fit at the time they were put in the building.

8. yášoʔvatʔañoò (šoʔva- 'embroidery', -tʔañoò 'end-his')—supplementary cross-rod [7]

9. yáaȼétʔañoò (-ȼé- 'ʔ', -tʔañoò 'end-his')—gable-end horizontal brace [9]

10. yáčą`ą̨ (-čą`ą̨ 'ʔ')—intermediate rafter [10]

11. yánàšò ('carrizo')—horizontal thatch supports [11; lowest support, 12]

12. nʔóthòà—tree bark for lashing
    nʔóchòàyáyaò—another tree bark for lashing

13. nʔótoʔvĩi—a tough vine also for lashing.

Before the actual building begins, the ground at the site of the building is levelled off. This, in a mountainous terrain, almost always involves cutting into the mountainside, levelling up the low side with the dirt and rocks cut out of the top side. This is done several days, weeks, or even months, before building in order that the ground will be perfectly dry for the floor of the house.

The actual building of the roof proceeds as follows. First the six upright posts are prepared. A rectangular piece, five inches in from the end and three inches in from one edge, is cut out of the top end of each one. The posts are then placed in hand-dug arm-length holes, one at each corner and one in the middle of each long side of the house. The distance between the corner posts along the side of the house is nineteen feet, along the end of the house twelve feet. The posts are placed in parallel pairs, one of each pair being on each side of the house. The end pairs have their cut-out tops facing out, away from the end of the house. Both the middle pair face the same way, it being quite incidental which end they face. Each pair of posts is checked for height by a rope drawn taut across their cut-out top ends. The poles are tamped into the ground until the rope appears level to the eye. The three along each side are similarly levelled. They are finally set by repacking the holes with dirt around the base of each post.

The three crossbeams are then prepared. On one of the narrow sides of each, about four inches from each end, two holes are gouged, about two inches deep and an inch in diameter. They are then placed on the posts, each crossbeam resting in the cut-out ends of a pair of posts. The edge of the crossbeam with the two holes is on top. They are lightly tied to the posts with bark rope. The posts being twelve feet apart and the crossbeams thirteen and one-half feet long, the ends of these crossbeams extend six or seven inches beyond the posts (see Plate 15, upper illustration).

The roof brace is then laid over the middle of the crossbeams. It extends six inches beyond them at each end of the house and serves as a brace for the crossbeams, being securely fastened to each one with bark rope (see the same illustration).

The six main rafters are trimmed at one end to a point an inch or less in diameter. Three of them are mortised at the other end, the other three tenoned. In pairs, tenoned and mortised poles are fitted together at a little less than a ninety degree angle and fastened with bark rope. Held upright by guide ropes on each side, each pair is lifted up to, and the pointed lower ends are dropped into place in, the holes on the upper edge of the crossbeams.

It is worthy of note at this point that these main rafters are nowhere actually fastened to the crossbeams, nor to the posts. The pointed ends of these rafters simply rest in the holes on the upper edge of the crossbeams. The entire roof structure from this point on is built on, and fastened to, these main rafters.

The eight supporting poles, which are to form diagonal braces between the main rafters, are deeply notched all around the bottom end, about an inch from the end. Once two pairs of main rafters are in place, held upright by the temporary guide ropes, the notched end of one of these diagonal braces is tied securely with bark rope to the base of one of the rafters. The upper end of the brace is swung over diagonally until it touches the other rafter on the same side of the house, at which point it is tied to the rafter. Since the diagonal braces are thirteen to fifteen feet long, the upper end meets the rafter at, or above, a point half way up the side of the roof (see Plate 15, upper illustration). Another brace is fastened in the same manner to the base of the second rafter, then swung over and fastened to the middle (or above) of the first one. Two more diagonal braces are in a similar fashion tied to the two rafters on the other side of the roof. The third pair of main rafters are raised to position and the four remaining braces fastened to them. Where the diagonal braces intersect they form a cross and hence are sometimes called yákröo (kröo 'cross') (see Plate 15, middle illustration).

The next poles to go on are the two wall plates. In order to keep the bark rope which fastens them to the rest of the structure from slipping off they have a slight "wrist" chipped out at each end (see Plate 14, right). The wall plates are placed, one on each side of the roof, on the outer ends of the crossbeams, outside the holes where the feet of the main rafters rest. They are lashed to the feet of the rafters at the same point where the notched ends of the diagonal braces are fastened to the rafters. They extend about six inches beyond the crossbeams at each end of the house (see Plate 15, middle illustration).

Across each gable end of the roof a supplementary cross-rod is laid on the very ends of the wall plates and tied to them with rope. It thus runs parallel to the crossbeam but four or five inches outside of it. In the middle it rests on, and is tied to, the protruding end of the centered roof brace[10] (see Plate 15, middle). The men, by walking along the wall plates, are now able to reach and tie the diagonal rafter braces where they cross each other. Then on each side of the roof, halfway up the side of the roof, a horizontal rafter brace is placed. It is fastened to the three main rafters and also to the diagonal braces where it crosses them. It extends two or three inches beyond the main rafters at each end of the house (see same illustration). Across each gable end of the roof is placed a horizontal brace (yáa¢ét'añoò). It rests on and is secured to, the protruding ends of the horizontal rafter braces (see Plate 15, lower illustration).

Standing on the horizontal rafter braces, the men now place one of the ridge poles in the crotch formed by the protruding ends of the mortised rafters. It is laid so that its larger end, which has a "wrist," extends some three to three and one-half feet beyond the end of the house. The same is done with the other ridge pole at the opposite end of the roof. The inner ends of these ridge poles, where they overlap, are tied together, and the whole securely fastened to the three sets of main rafters. The two protruding poles, one at each end of the roof ridge, carry the whole structure of the distinctively Mazateco ears (see Plate 16, upper illustration).

Two poles (yánàšò) are tied together in order to make one long light pole equal in length to the wall plate. This is then slipped into loops of bark rope suspended at several places from the plate. It swings freely six inches below, and parallel to, the plate. This is done on each side of the roof at the eaves and also across the ends. On the ends these poles are the same length as, and are suspended from, the supplementary cross-rods.

The intermediate rafters are then laid on top of the ridge pole, horizontal rafter brace, and wall plate, parallel to the main rafters. They extend from above the ridge to six inches beyond and below the plate. The pole at the eaves (yánàšò) suspended from the plate is swung out and the lower ends of the intermediate rafters are slipped under it about one inch. Each such rafter is then securely tied to this pole, which prevents it from sliding down the side

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10 This might be considered a contradiction of the statement that the roof is nowhere actually fastened to the supports. Actually it is not. Granted that the supplementary cross-rod is tied to the centered roof-brace, which in turn is tied to the crossbeams, which in turn are tied to the posts, the initial tying of the cross-rod to the centered roof-brace is more or less incidental, the cross-rod already resting on top of, and being supported by, these braces without any tying.

HOUSE TYPE AND CONSTRUCTION

LEFT: Thin-plank house (note overlapping edges of shakes and extra half-length shakes on lower wall). RIGHT: Fastening the crossbeam to a post (note lashed-on cross-stick for builder's perch and "wrist" chipped in end of pole on ground).
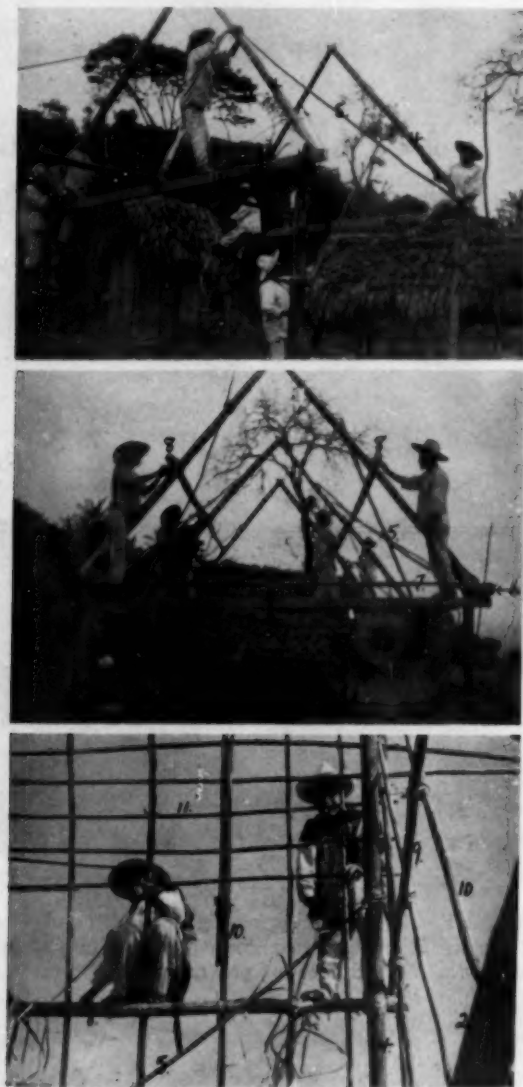
MAIN FRAMING OF THE ROOF

UPPER: Fastening the diagonal brace (5) to main rafters (4). MIDDLE: Fastening the horizontal rafter braces (8) to rafters (note crossing of diagonal braces at 5). LOWER: Tying the horizontal thatch supports (11) to intermediate rafters (10) (note uppermost horizontal braces extending beyond gable to form the ear).

NOTE: Other numbers in Plates 15-17 correspond to named parts on pages 381-382.

CONSTRUCTION OF ROOF SURFACE

UPPER: Fastening the lowest horizontal thatch supports to the intermediate rafters (note framework of the ear [13] and sugarcane leaves [14] piled ready for thatching). MIDDLE: Thatching the corner of the roof (note log scaffold and short rafters [10] on underside of the ear). LOWER: Thatching the roof slope, beginning at corner, from eaves to ridge.

ROOF AND FRAME CONSTRUTION

Upper: Trimming the thatch at the eaves (note thickness of thatch). Middle: Sawing poles for horizontal strips (note standing thick-wall planks, grooved and tongued). Lower: Framework of the wall (note distance between posts [1] within the house and the studs [15]; horizontal strips [16] in place).

of the roof and assures nice even eaves to the roof (see Plate 16, upper and middle illustrations). The intermediate rafters are then tied to the horizontal rafter brace, and, at several places, to the diagonal braces between the rafters. They are not tied to the wall plates.

Poles analogous to the intermediate rafters (and called by the same term, yáčą`ą) are then put on the gable ends. Four are used. Along the supplementary cross-rod they are evenly spaced but instead of being perpendicular they are sloped inward toward the ridge. They are tied at their top ends to the outer intermediate rafters of the sloping sides of the roof, to the gable-end horizontal brace, in this case to the supplementary cross-rod, and to the horizontal thatch support (yánàsò) at the eaves, which swings out and is fastened to their outer side (see Plates 15, lower, and 16, middle).

The rest of these thatch supports are laid horizontally on the intermediate rafters, spaced six inches apart. On the sides of the roof two are spliced together to make one pole the length of the roof. The men, standing on the horizontal rafter brace, begin from the ridge at the top and work down to the eaves, tying the thatch supports to each intermediate rafter at every intersection. The top five horizontal thatch supports on each side of the ridge are extended beyond the gable ends of the roof the same distance as the ridge poles. Similarly, thatch supports are also tied horizontally to the upright filler rods (yáčą`ą) on the gables. Down the edge of the roof, where end meets side, they are also fastened to the ends of the horizontal thatch supports of the roof sides (see Plates 15, lower; 16, upper and middle).

Using these horizontal thatch supports as steps to climb to the ridge, the men then tie the top ends of the intermediate rafters to the ridge poles and trim them to make an even ridge.

Then, one of the men, perching precariously on the very end of the ridge, or at times even out on the protruding ridge pole, ties two or three short rafters (yáčą`ą) to the underside of the horizontal thatch supports and ridge pole of the ear (see Plate 16, middle).

The roof is now ready for the thatch. The thatch is prepared by leaving it outside where the night dew will moisten it enough so that it will bend well without breaking. If the season is very dry, sometimes water is sprinkled on it.

A rough scaffold, halfway to the eaves, is constructed by lashing a long pole to other poles which lean against the posts which support the roof structure. The men work in pairs, one doing the actual thatching, the other helping by getting it ready for him. The thatchers begin on the lower rows of horizontal thatch supports. The helpers are on the roof above the thatcher. Men on the

ground throw the thatch (škà), bundle by bundle, to the helpers on the roof. These in turn break the bundles open, separate the leaves into handfuls the size that the thumb and forefinger of one hand can easily grasp, even up the thicker butt ends, and hand them, thus prepared, to the thatcher. The thatcher bends the handful of leaves about the middle, or a little closer to the thick end than the middle, puts the butt end over the bottom thatch support at the eaves, then under the next horizontal support above it, bends it up beween the second and third rows of supports and right back over on top of its own other end which is lying on top of the lowest thatch support. It is thus wrapped tightly around the second support and both ends hang down together over the lowest support at the eaves. The thatcher, when the lowest row of thatch is completed, moves up a row. The thatch is now laid on the second row of supports, drawn under the third row, bent up between the third and fourth rows, brought back down on top of its own other end which is lying on top of the second and bottom rows of supports. As they thus work up the roof, the helper stays above the thatch line, while the thatcher climbs up on the already thatched rows (see Plate 16, middle and lower illustrations).

The longest and best thatch is used on the corners and outer ridges of the roof, which are done first, always. Starting at the lower corner, the thatch is packed very tightly on each row of horizontal supports for a foot or so along the side and the gable end next to the corner. In order to hold the thatch down and make a neat looking corner, a strip of bark rope is fastened to the lowest thatch support on the gable end, about a foot from the corner, drawn tightly over the ends of the first four or five rows of thatch hanging down over the corner, then tied to the lowest thatch support on the side of the roof about a foot from the same corner. The thatcher then proceeds up the edge of the roof to the ridge, thatching about a foot along the side and about a foot along the gable end on each succesive row of supports. When both edges on the same end of the roof are completely thatched right up to the ridge, the ear is done. Then the thatchers return to the eave line and work up the whole broad side of the roof to the ridge. When both sides of the roof have been completely thatched a row of thatch is laid over the entire length of the ridge, the thick ends directly above the ridge poles, the thin ends hanging down one pitch of the roof. A second row of thatch is then laid on top of the first, the thin ends hanging down the opposite pitch. In this fashion the thick ends of both rows overlap in double thickness directly over the ridge (the most vulnerable part of the roof), the thin ends of each row hanging down on opposite sides. Two rows of poles (yánàšò), one on each side of the ridge, are laid on top of the double row

of thatch and tied to the ridge poles by vine rope that goes down through the thatch and under the ridge poles. Vine rope is used here because it will not rot as quickly as bark rope. Over these yánàšò are placed, every three feet along the full length of the ridge, two bundles of thatch, their thick ends overlapping in the center and their thin ends hanging down opposite sides of the roof. These are likewise fastened to the ridge poles by vine rope. These final bundles of thatch give the ridge, when completed, a bumpy, spine-like appearance (see Plate 12, lower illustration). The gable ends are then thatched, beginning at the bottom and working to the top. The thatch, in this case, is often put on from inside the roof, the men standing on the end crossbeams and centered roof brace. The uppermost two or three short rows of thatch supports, right under the ear, are not thatched.

The thatching completed, the eaves are trimmed in a straight line an inch below the ends of the intermediate rafters. Special men do the trimming, although it does not seem to require any special ability other than being able to use a good sharp knife and cut a straight line along the guide rope strung under the eaves (see Plate 17, upper). Sometimes only the sides at the eaves are trimmed (see Plate 13, lower left). A few Mazateco roofs, as for example the animal sheds and the dog shelters in the fields, are often not trimmed at all.

The Mazateco roof as described above is good for fifteen to twenty years. Whenever leaks occur in the roof, more thatch is shoved into the leaking spot from inside the roof. On the north side of the roof parasitic flowers and moss often start to grow. These keep the roof constantly wet and hasten the rotting of the thatch. However, if the roof has a fire under it, the smoke from the fire blackens and toughens the thatch and slows down the rotting. A thatch roof will last five years longer if there is a fire under it. Insects which burrow into the logs of the roof structure make necessary the replacement of these at times also.

The cost of erecting such a roof will vary from one hundred to one hundred and fifty pesos, depending on the fluctuating costs of materials. Sugarcane thatch costs five to seven centavos a bundle. The large beams cost three pesos each, the medium ones two pesos, while the smaller ones, such as the intermediate rafters, cost fifteen to twenty centavos each. The horizontal thatch supports are two or three pesos per hundred delivered. If men are hired to do the work, they will be paid one and one-half to two pesos a day. This compares favorably with the average wage of a man working in the fields, one and one-half pesos per day.

BUILDING THE WALLS

The materials necessary for walling a house of the dimensions given in the preceding section are: (1) Twelve poles for studs (yášin²į́ Ǫ: ši- 'connective', -n²į́ Ǫ 'strong'), eight feet long, two inches in diameter, or, if sawn lumber, two inches square. (2) Twelve feet of an especially hard wood which will not rot quickly (yáničayáa: niča- 'core', yáa 'wood'), two inches square, from which stakes are made. (3) Eight horizontal strips (sīntà, from Spanish *cinta* 'strip'), thirteen feet long, two and one-half inches wide, one and one-half inch thick, or, if round, two inches in diameter. (4) Eight strips (also sīntà) twenty feet long, of similar dimensions as to thickness and width. (5) Seven dozen planks (yátèethạị́), seven and one-half feet long, ten inches wide, one inch thick; or, twenty "fathoms" (nankaà⁹) of shakes (yátèechoè) five feet long, varying greatly in width and thickness because hand hewn, but always thinner than the planks; or, two hundred *carrizo* (yánàšò) if the house is of wattle-and-daub construction; or, one thousand, five hundred adobe bricks if an adobe house; or, eight to eleven cubic "fathoms" of rocks if a rock-walled house; or, as many corn-stalks as can be stood side by side around the entire wall if a corn-stalk house. (6) Several bundles of bark and vine rope, or, several pounds of nails and some hinges.

The building of a wall of a thick-plank house proceeds as follows. First, the hard wood (yáničayáa) is cut into foot lengths for stakes serving as footing for the studs. One such piece is then spliced on to the foot of each stud. These are then set six to ten inches into the ground, one at each corner, one in the center of each end, two along each side of the house, and two for the doorposts. For stability, they are usually fastened at the top end to the inside of the wall plates. This is the only place where the wall structure has any connection with the roof. Four horizontal strips (sīntà) are then fastened to the studs, along each side and across each end. One such strip is about six inches up from the ground. Another is six inches down from the wall plate. The other two are evenly spaced between. Some houses have only three such strips (see Plate 17, middle and lower illustrations).

The planks are planed on one side, grooved and tongued on the edges. They are nailed vertically on the horizontal strips, the planed side out, with bottoms set into the ground one or two inches. In a very few cases the walls are set in a rock foundation about one to two feet high. The outside is planed for appearance and also because it will shed the rain better and therefore not rot so soon (see Plate 13, upper right). About half the thick-plank houses have the horizontal strips on the outside of the planks. They are nailed to the studs through the planks.

The cost of materials for a thick-plank wall is between one hundred and one hundred and fifty pesos, the planks costing a peso or more apiece, horizontal strips a peso and one-half apiece, studs three or four pesos for the twelve. Native carpenters build the walls of this kind of house. They are hired by the job, a good price for the job being fifty or sixty pesos. The preparation of the lumber and the building of the wall takes ten to fourteen days.

In building the walls of thin-plank house of shakes, the studs and horizontal strips are the same as in the thick-plank house. The shakes (yátèechoè) are nailed to the outside of the strips, from the wall plate down. Because they are only five feet long, a half length is usually necessary all around the bottom to complete the wall to the ground. Some houses, with a very low roof, do not need the extra half length at the bottom. Because of the uneven, hand-hewn edges, the shakes are often overlapped on the edges to make the wall more wind-proof (see Plate 14, left). On many houses the shakes are fastened to the horizontal strips by vine or bark rope. This leaves a slight crack between the shakes where the rope passes between them. The cost of a thin-plank wall is about thirty pesos less than a thick-plank wall.

If the house is wattle-and-daub a few more studs are used. They are placed about three feet apart all around the wall. No horizontal strips are used. The *carrizos* are tied to the studs with vine rope in rows three or four inches apart, top to bottom of the wall, on both sides of the studs. Wet adobe is then packed in between the two sets of *carrizos* and left to dry (see Plates 12, lower; 13, lower right).

If the house is made of corn-stalks, studs and horizontal strips will be used as described for the thick-plank house above. The corn-stalks may be tied either inside or outside of the horizontal strips. Each loop of the vine rope that fastens them to the strips includes two or three corn-stalks (see Plate 13, lower left). As to cost, the corn-stalk and wattle-and-daub houses are the cheapest of all Mazateco dwellings.

In the case of rock-walled and adobe houses, a native mason will usually be hired to build the wall. For mortar he will use wet adobe. The wall will be a foot to two feet thick. Wooden frames for doors and windows are set in the walls as they are built. The crossbeams (yákìčò) are laid on top of the finished wall. In cases where the roof is built first, when the wall is finished, the posts which support the roof are removed and the crossbeams are lowered on to the walls. Adobe walls usually have a stone base a foot or more high (see Plates 12, lower; 13, upper left). Adobe walls are sometimes plastered and painted white with lime.

Doors for thick-plank, rock-walled, and adobe houses are made by a carpenter of planed lumber and will often be two or three inches thick. They will be fastened to the door frame with hinges and are usually double-door style. Doors of the other types of houses may be either made up of corn-stalks, shakes, or poles tied together with vine and the whole hinged to a stud by heavy vine or wire or rope. The door sill is often nothing more than a heavy log on the floor against which the door closes.

Window openings in shake houses, and sometimes in thick-plank houses, are simply holes cut in the wall, the plank cut out of the wall being used to make a shutter. On the horizontal strips above and below the window opening, and to one side of the window, are placed little wooden rails. The shutter slides back and forth along the horizontal strips, kept in place by these rails. Wattle-and-daub houses have windows set in built-in window frames. Corn-stalk houses usually do not have windows. Adobe, rock-walled, and sometimes thick-plank houses, have shutter windows on hinges.

Well-packed dirt is the usual floor for all types of houses. A few rock-walled or adobe houses have floors of planks (yátèethąi̧`), grooved and tongued and laid on stringers.[11]

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11 All pictures were taken by the writer, Plates 12, upper; 13, upper right, 15, 16, 17 being of his own house in various stages of construction.

SOCIAL MECHANISMS IN GROS VENTRE GAMBLING

REGINA FLANNERY AND JOHN M. COOPER

INTRODUCTION

THE PRESENT PAPER is offered as a modest start toward opening up what looks like a promising field, namely, the social implications of gambling.

Our anthropological sources yield a fairly generous amount of information on the world distribution of gambling,[1] the games and sports gambled on, the valuables wagered, the payment of gambling debts, and the ritual accompaniments of gambling. On the other hand, the same sources yield extremely meager information, and for most gambling peoples none at all, on such social aspects of gambling as: its mode of meshing into the prevalent social organization (who gambles, with whom, and for what); its effectiveness in fulfilling or thwarting the wishes of the individual gambler and in meeting or blocking the needs of integral and fractional social groups; individual differences in participation and the motivations responsible for them; native attitudes toward gambling; the economic and other factors that are favorable or unfavorable to the rise and persistence of gambling in culture as such or in given cultures. Field and library studies of these and most other social aspects of gambling have been almost entirely neglected by anthropologists.[2] And, so far as the present writers have been able to discover from rapid search among the sociological sources and from random inquiries among their sociological friends, such studies have also been almost entirely neglected by the sociologists, even by those specializing in the area of delinquency.

The following pages are an attempt to present the gambling complex, with emphasis on certain of its social aspects, as it existed during the second half of the last century among the Gros Ventre of Montana. Most of the complex is now a thing of the past. New gambling games, particularly playing cards, have superseded the old, and gambling itself, on the reservation and among the Gros Ventre in general, is not the tense and meaningful activity it used to be.

The data on which this paper is based were gathered, incidentally to a gen-

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1 World distribution is spotty and far from universal. A summarized world distribution, based on several hundred sources, is given in J. M. Cooper, *Temporal Sequence and the Marginal Cultures* (Anthropological Series, Catholic University of America, no. 10, 1941), pp. 67-68.

2 Father Gerald Desmond's *Gambling among the Yakima,* from his field study of 1944, a manuscript now being prepared for publication, is devoted largely to the social aspects.

eral study of the social organization and religion of the Gros Ventre, at the Fort Belknap Reservation, Montana, in about equal proportions by Flannery in the summers of 1940 and 1945 and by Cooper in the summers of 1939 and 1940, from Gros Ventre informants, mostly of the older generation. In most cases we used interpreters; in some, we communicated in English. Our chief informants on gambling were: The Boy (b.1872, our most important source, who had gotten a good deal of his information from his father, Lame Bull, b.1825, d.1908), Thick (b. ca. 1870-71), Charles John Buckman (b.1872), Mrs Takes-a-Prisoner Warrior (b. ca. 1850-55) and Mrs Singer Sleeping-Bear (b. ca. 1860). These informants were exceptionally intelligent and dependable, and were not only willing to give us the information they had but anxious to do so. In spite of this, not all the past could, of course, be recaptured, and in certain parts the picture we got is far from complete, particularly regarding individual differences and motivations. However, we have had extremely little reconstruction proper to do, as most of the older gambling complex survived up to near the turn of the century, and had been actively participated in and/or witnessed and was vividly remembered by our informants, while some parts of it, especially many of the social aspects thereof, have persisted down to the present.

WAGERS AND BETTING PROCEDURE

Stakes wagered by the Gros Ventre may be divided into small or trivial ones and big or valuable ones. Small stakes consisted of such things as arrows, bows, bags, beads, pipes, knives, handkerchiefs, dishes, and so forth; big ones, of such things as guns, saddles, lodges, and especially horses (the chief wealth in the old days). Wives were never wagered. Two teams might play mostly for fun, the losers being merely expected or obligated to provide a smoke, or, as more commonly, refreshments or a meal—"to cook," as the current expression goes—for the winners. This last was seemingly the only type of non-dyadic wagering in vogue among the Gros Ventre, if it can be called wagering at all, for such provision of smokes or food for relatives and friends was an everyday custom. Mrs Sleeping-Bear stated that in a gambling game she once played with her husband's brother, she forfeited her eyebrows, which he pulled out, but whether this was an exceptional occurrence or a customary one within the prevalent pattern of rough familiarity between brother-in-law and sister-in-law we could not discover.

Betting was typically dyadic, a given individual matching the wager of another individual, and the stakes going to the winning individual. The dyadic system was kept to even where, as was common, betting was by sides, each side,

composed of several or many participants, betting on its favorite player or team. There was no pooling of bets by groups, with equal division of gains among the winners, apart from the "stakes" of food or smokes above mentioned. A given person could put up two or more wagers in a given contest with two or more other persons, but any one wager laid by any one person had to be matched by a single individual. Thus a handkerchief might be matched by another one of equal value, a good horse by another good horse, and so forth. In one case we recorded, a watch was matched against a pair of field glasses, the matching being calculated more by use-value to the respective owners than by money-value or "store-value." Finally there was seemingly no gambling on the promissory principle. Bettors had to have the stakes on hand and to put them up on the spot in full sight of players and onlookers, except of course where a man's lodge or perhaps a given horse at pasture was wagered. Consequently gambling debts proper were not incurred; at most a man lost all he actually possessed at the time. If in the course of a game, he had lost all he had actually at hand and wanted to bet more, he would send for or fetch the articles he wanted to put up.

In gambling activities, certain rather elaborate rules obtained as to who could gamble and could not gamble, with whom, and for what—rules which will be explained later in connection with the wheel game and especially with the hand game.

GAMBLING GAMES AND SPORTS

The Gros Ventre gambled, or gamble, chiefly at the following games and sports: 2-button hand game, wheel (hoop-and-pole) game, horse and foot races, dice, ring-and-pin, bow and arrow contests, and, more recently, playing cards. Of these the more important, as judged by size of wagers, by degree of participation, and by intensity of interest, were the 2-button hand game, the wheel game, and the races. We shall take up, first and briefly, the minor gambling games and sports, and get them out of the way, and after that, in more detail, the above three major ones.

MINOR GAMBLING GAMES AND SPORTS

The dice game, played with four dice having marks carved or painted on them, was a woman's game.[3] The dice were rubbed in the hands and then thrown down. Ordinarily the wagers were small, but sometimes even horses were lost and won by the women.

3 Illustrations of Gros Ventre dice are given in S. Culin, *Games of the North American Indians* (Twenty-Fourth Annual Report, Bureau of American Ethnology, 1907), figs. 54-55, p. 71, and A. L. Kroeber, *Ethnology of the Gros Ventre* (Anthropological Papers, American Museum of Natural History, vol. 1, pt. 4, 1908), figs. 14-18, pp. 184-186.

Women (and men?) also gambled at ring-and-pin, the "ring" being made of four bones from deer feet.[4] The contest was mostly just for fun; the losers would have to "cook" for the winners.

Several types of bow and arrow contests, serving as archery practice as well as gambling sports, were indulged in by boys, young men, and sometimes older men, not, however, by girls or women. Both distance and accuracy contests occurred. In the latter, the target was a stick or arrow stuck upright in a small mound, or an arrow shot by one contestant a desired distance, say, 100 or 150 yards. In another kind of contest, a bow was set slanting, string upward; the string was vibrated by an arrow and the arrow on release flew toward the target about 35 or 40 feet away. In these bow and arrow contests, the wagers were small, usually arrows, sometimes a bow. Wagers were made by the players, and at times by onlookers too.

The modern 4-button hand game, distinct from the earlier 2-button one, is played more for fun than for winnings. At most the losers may be expected to "cook" for the winners. This modern non-gambling hand game came to the Gros Ventre through an Arapaho, Dances All Night, in 1897, shortly after the time the Ghost Dance was introduced among them (in 1891). The Ghost Dance itself had little popularity among the Gros Ventre and after a couple of years died out among them, but the non-gambling hand game took root and survived. At first, we were informed, it was played with two buttons, but after 1903 with four.

Gambling at playing cards, sometimes for large stakes, occurs today, but usually at the nearby white settlements, between Gros Ventre and white males. Some of the older Gros Ventre are shrewd poker players, and the younger ones play poker among themselves, but we obtained no record of ruinous stakes at cards among the Gros Ventre themselves on the reservation.

Major Gambling Games and Sports

The three more important gambling games and sports of half a century or more ago were races, the wheel game, and the 2-button hand game.

1. *Races*

On horse races, usually between the two soldier-police societies, the Stars and Wolves (the latter became later the "Grass Dancers"), or between the Gros Ventre and other tribes, such as the Piegan, at intertribal gatherings, were placed large bets—horses, saddles, and so forth—by the men, not however by

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4 Illustration in Culin, *op. cit.*, fig. 706, p. 537.

women or children. The winners would twit the losers with such remarks as:
"Don't use that horse to race with. Use it to pack meat." Horse races for
prizes, as distinct from wagers, did not occur.

Bets, often large ones, of horses and so forth, were laid on foot races, par-
ticularly on foot races between champions of the two above-mentioned soldier-
police societies.

2. The Wheel Game

While large bets were often laid on horse and foot races, the most intense
gambling interest of the Gros Ventre appears to have centered on the wheel
game and the 2-button hand game.

The wheel game, as the present-day English-speaking Gros Ventre call it,
was a variety of the hoop-and-pole game. The implements used in it were: a
small buckskin-wrapped hoop about 3-5 inches in diameter, with variously colored
large trade beads strung within the rim,[5] a "pole" consisting of an arrow or a
stick, and a set of short sticks serving as tallies or counters. The court was about
25-30 feet long with, at each end, a log or other obstruction against which the
wheel bumped and then fell. One of the two players would roll the wheel
underhand with his right hand, and the two players, each with his pole, would
trot on toes, sideways or backwards, stooped over somewhat, alongside the rolling
wheel. As the wheel bumped against the obstruction, each would hurriedly but
deftly throw down his pole for the wheel to fall upon. If according to the count
of beads the roller lost the throw, the other player then rolled. The wheel was
rolled back and forth in the court alternately. The roller had a slight advan-
tage over his opponent, but he had to play fairly and roll the wheel vertically,
for if he rolled it slanting so that it fell toward him too often he was not con-
sidered a good sport.

Before the game started the two players agreed upon the number of counters
(say ten for each player) that would constitute a game, upon the value in
counters of each bead, and upon one particular bright- or odd-colored bead
which would win all the counters and with them the game and the stakes. The
counters were not put in one single pile, as they were in the 2-button hand
game. They were "bought" with the wagers in equal numbers by the two
players from a man widely known for his honesty and integrity who functioned
in the game as keeper of these wheel-game counters. This man sat all through
the course of the game and "sold" counters to the two players. Each player had
a second or representative who looked after his counters, receiving or giving

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5 Illustration in Kroeber, *op. cit.*, fig. 22, p. 188.

according to the fortunes of play on orders from the principals. Each player also selected a watcher who had to see that the game was played straight.

If the wheel after falling came to rest on neither player's pole, no counters were won by either player, but the player towards whose pole the wheel came to rest closer won the right to roll the wheel next. Whether counters were won by relative closeness of pole to bead or by actual contact only, is a minor point we could not clear up.

Once a player had thrown his pole, touching it was strictly forbidden: "You could not even blow on it," as one informant expressed the matter. At times there were close decisions and arguments would arise over the lay. If the two opponents could not come to an agreement, each would look over the spectators and each would pick out some man of known fairness and probity to act as referee. To be chosen as referee in a big game was looked upon as a high honor. The two referees might have to lie down flat on the ground in order to get as close view as possible, and each might argue his case for his chooser. An agreement reached by the two referees was supposed to be final and without appeal. Sometimes, however, the argument would end in blows.

The wheel game was ordinarily played outside the camp circle, not as the result of any strict prohibition, but merely to be out of people's way. For a big game would attract a large number of spectators and backers, and interest was intense, so intense in fact that in an all-day series of games neither player nor onlookers might go back to their lodges to cook and eat, but might forego eating or else have the food brought to them by the women. Relatives and other partisans of the winning player might provide food for all present, with boasting comments, such as: "Our 'race-horse' here is not just a young fellow. He can feed this whole crowd here too. We will show you how this is done, just as he is showing his opponent how to play."

The onlookers had to keep from getting in the way of players, and could not interfere in any way. Nor was there any rooting by them. In fact, while the game was all-absorbing for players and for spectators, it was played tensely, quietly, and gravely, without the noise and hubbub that characterized the 2-button hand game. And no songs were sung by any one during it; the winner would merely give a yell at the end. Should the winner's pole touch the "joker" bead, he would just walk away, and some one or more of the crowd would walk up to the spot where the wheel lay and would say: "Yes, that's the 'joker' bead." The winner, however, might twit the loser, with some such remark as: "My friend, haven't you any better sense than to gamble with me. You know or ought to know that you don't amount to much."

The wheel game, too, in contrast to the 2-button hand game, was accompanied with no legerdemain and no grace or fancy movements. The players might run or trot in a rather awkward or ridiculous fashion, "awfully funny, like a chicken walking backwards," as one informant put it; but they did not care what the crowd might think of their queer or clumsy gait; they were out to win; they would await some other occasion "to show off handsome."

Likewise, in the wheel game, no prayers to any being were said and there was no resort to supernatural power gotten from prairie chickens or ghosts (see *infra* under hand game). Even if a given wheel-game player had such power, it was of no avail in the wheel game and was not called upon. In the gambling-for-scalps story, to be mentioned presently, the Gros Ventre prayed to the Supreme Being to win, but here there was question not so much of winning material goods as of preserving physical wholeness and life itself, things within the peculiar keeping of the Supreme Being in Gros Ventre theology.

Success in the wheel game depended on two things: skill and what may be called thought-wish power. In the play all effort was concentrated by the players on the utmost exercise of skill and adroitness acquired through long practice and of judgment, in following the rolling wheel and in throwing the pole at just the precise moment and in just the right manner. But, in at least some of the big wheel games, a sort of thought power or thought-wish power was used by the players. In how far such power can be considered "supernatural" is hard to say; it seems to have been more "natural" than "supernatural," as judged by most definitions of "supernatural." At any rate, it was not a power gained, as most other Gros Ventre supernatural powers were gained, from some being by crying, fasting, and dreaming on mountain tops or along timbered water courses.

Its efficacy was derived ultimately from the player's previous war exploits. Its exercise was along the following pattern. There being no set time for wheel games, one might get under way any time, with relatively small stakes, and develop in the course of play into a really big game, or the game could be a big one from the start. In such a big game, between outstanding opponents, for large stakes and for status (see *infra*), before starting to roll the wheel, each player would in turn take the wheel in one hand and with the other touch his pole (arrow or stick) under the wheel on a particular bead. While doing so he would think with intense concentration of one of his past war deeds—e.g., a horse he took from the very door of his enemy's lodge at great risk of life—and would say in his mind, silently and not audibly: "I am not telling a lie [about this deed]. The powers know I am not telling a lie." He would rehearse the event in his mind, and probably (the point was not fully cleared up by us) would think of

some object connected with the deed, which was of the same color as the bead he was touching.

This thought-wish was a sort of indirect or implicit oath, not a formal audibly uttered one. If he actually had done no such deed, he could not hope to have good fortune from such intense concentration of thought and wish. But it was not a prayer proper; he was not asking anything directly of any being. The act was called beta´c^te et'^a. It may be added here parenthetically that a highly abstract concept of effective power from deeply sincere wish or intense thought or from both combined plays an important part in many phases of Gros Ventre life even today.

While the player was making this silent wish, the spectators would speculate a lot about which of his great war deeds he was thinking. Later the winner would recite publicly the great deed he had been thinking about. In doing so he had to keep scrupulously to the facts, facts well known to the people, for he was looked upon as a man of character and high standing with a reputation gained by merit, sacrifice, and risk of life.

If a player were losing, one of his kinsmen, friends, or backers might volunteer to take his place playing, and also (apparently: our field evidence is not fully clear) to use his own war deeds power.

The main gambling at the wheel game was for stakes wagered by the two players themselves, a given piece of property against an equivalent piece for each game of any agreed number, say 10, of counters won. But the spectators, too, often bet on the game, although not so generally, it appears, as they did at the 2-button hand game. The wagers by players or spectators could be small or large. Two given players might keep at play many hours in succession, playing game after game. In some instances the betting between the two players would result in the loss by one of the last bit of his property—horses, blankets, clothing, household utensils, even his lodge itself. A comparatively wealthy man could thus become a "pauper" in a day. Often, too, the relatives of the players would win or lose almost as heavily in backing their respective kinsmen.

In some of the big wheel games the "social" stakes were as important as or more important than the property ones, as illustrated in the case of Lame Bull given below. Two prominent men, enemy friends to each other and at the same time rivals for prestige and status in the tribe, would on a given day play the game à outrance. The winner's status and prestige would be greatly exalted; the loser's proportionately lowered. A man's whole career of advancement to prominence in the tribe—a basic ambition among Gros Ventre men—could be brought to ruin in a single day's gaming at the wheel game. He might lose not

only his property and so have to begin accumulating again from scratch, but might at the same time lose as well his standing in the tribe and become a defeated and disgraced nobody, of a low standing from which it was very difficult to rise in the scale.

The wheel game was not played by women or children, nor apparently by the very young men, but only by fully adult or middle-aged men and older ones, and by only two players at a time. The really big games with large stakes were in most cases, it seems—almost all, according to our informants—played by two "enemy friends" or "war friends." Such enemy friends or war friends were very different from ordinary friends or "true" pledged friends. An "enemy friendship" was a war-related compact entered into in the following manner. A member of a returning war party would give some trophy or booty he had taken from the enemy—e.g., a scalp, or horse, or weapon—to one of his own compatriots of the same or opposite sex, who had little choice but to accept. Acceptance made "enemy friends" or "war friends" of the two. War friends, particularly if unrelated and both males, could go the limit in twitting and insulting each other and in playing practical jokes, even rather outrageous ones, on each other, and the victim had to take such behavior in good part, at least externally. However, along with the privilege of taking such liberties ran the accepted obligation to stand by each other in real need or hazard of grave nature.

The two war friends could gamble with each other. In fact, gambling among the Gros Ventre reached at times its climax in contests between two war friends. A wheel game between war friends commonly arose out of a "bragging match" between them; one would challenge the other to play the wheel game. If the one challenged declined to accept the challenge, his war friend who challenged him, and his other war friends, would ever after take occasion to deride him publicly for it at the least provocation. So the challenge could not easily be declined. The game often became one in which each enemy friend would go out to strip the other of practically everything he owned—horses, gun, blankets, lodge—and at which the most eager interest was aroused among the relatives, fellow-clansmen, and friends of the respective players and, for that matter, among the whole camp population. Such enemy-friend contests were commonly protracted sessions, often all-day ones, at the wheel game.

The following three narratives of particular wheel-game gambling contests—the first two of which are matters of well-remembered recent history, the third an older traditional story paralleled elsewhere on the Plains—throw some further light on the social role of the Gros Ventre wheel game.

Narrative 1. In 1893 two Gros Ventre, enemy friends to each other, Red Whip who died in 1912 and Many Tail Feathers, got into a gambling game with the wheel. Many Tail Feathers was losing and he got angry. He grabbed Red Whip and they had a rought-and-tumble tussle. They fell to the ground, with Red Whip on top, astraddle Many Tail Feathers. Red Whip drew his knife, cut off all of the other's hair, at which loss the latter cried while the people cheered a cheer of contempt. Red Whip acting as if he had scalped an enemy, threw the hair in the air, and said in the hearing of all: "What's the matter with you, my friend? You must have a weak heart. Look at me. This is what I did to my enemy [such and such a time]. You know all about it. I just wanted to show you that I am your superior in matters of this kind. But anyhow you can have that good horse of mine."

Narrative 2. Lame Bull, father of The Boy, our chief informant on gambling, died in 1908 at the age of 83 or 84 years. Lame Bull, when still a fairly young man, a rising one with prospects of rising higher and higher in the prestige scale, had been chosen as an enemy friend by White Owl, an older man, and Lame Bull had, according to custom, accepted the offer. An offer of enemy friendship was on the one hand almost mandatory, and on the other, where it came from an outstanding man of great experience and ability, as in this case, it was a real honor to the recipient and would rarely be refused.

When Lame Bull and White Owl became enemy friends, they "started to act like two roosters" and were saying to themselves: "I am going to get you when you are off your guard." Both knew that at some time or another, sooner or later, they would have to do something to put their enemy friendship to the greatest test. After much sparring around, the two men engaged in a wheel game as just such a climactic test. At this game White Owl had a big reputation (besides all his other accomplishments), while Lame Bull had no reputation at all at it.

On this occasion Lame Bull wagered everything he owned, and all his wife's property, including their lodge. As it was customary at such events for the kinsmen of the respective players to bet on their kinsman, Lame Bull's father, together with other relatives wagered large stakes on him, although the father was strongly opposed on principle to such betting and had always counseled Lame Bull strenuously against it. More, however, than large amounts of property was at stake; the players' relative and absolute standing in the tribe hung upon the outcome. In the case of Lame Bull and White Owl, the former a younger man of great promise, the latter an older one of recognized prominence, the rivalry was keen and, in a very true sense, ruthless. The older man was jealous of his great reputation and did not want any one to get near him in prestige. He was trying to crush Lame Bull's rising career betimes lest later Lame Bull might outdo him. At the same time, White Owl stood to profit even if he lost, for he would still be attached as enemy friend to Lame Bull and would have reflected prestige from being the enemy friend of this rising man. He would thus profit inevitably by the latter's prestige.

Lame Bull lost everything in the contest, and, of course, his father and relatives lost heavily. White Owl's people tore down Lame Bull's lodge and took it away as winnings and took everything in it, even down to the dishes of Lame Bull's wife. At the end of the playing, Lame Bull was an object of charity and a laughing stock.

About the only thing that earned him a bit of recognition was the fact that in spite of his loss of property and of status—to have recognition at all you had to have some possessions to hold and to give away in presents—and in spite of the strutting and crowing and twitting by the winner and his followers after the playing was over, Lame Bull did not lose his temper.

When the playing ended, Lame Bull had nothing of his own except his wife. So his father and mother invited them to eat. Downcast, embarrassed, ashamed, "feeling like a small potato," he ate. When he had finished, his father gave him such a tongue lashing that Lame Bull, who was very fond of his father, cried, and Lame Bull was a strong man who did not easily cry. He felt so bad that he went out on the hills and cried and cried, and slept out there, and came back a pretty sorry young man. And for a long time after, his wife, who also was one of his enemy friends, would throw this up to him: "Oh, you are nothing. You were always weak. Look what your enemy friend did to you. You will never amount to anything." And she would say such things to him especially when others were present. So she set about training him. At any rate Lame Bull was cured of gambling by his great loss to White Owl.

As time went on, Lame Bull recovered from the defeat which might have wrecked for good the career of another. His people had given him enough property to make a new start in life. He would invite White Owl to his lodge and give him big feasts and would make valuable presents of horses and such things to him. And White Owl would make a mental note of these things and would say to himself: "All right, my friend, you wait and see what I will do for you", awaiting the proper time to reciprocate, as was Gros Ventre custom. So a long time afterwards White Owl made very valuable presents to Lame Bull. And they were very good friends.

Narrative 3. Long ago, the story runs, a young Gros Ventre warrior went off alone on a war raid. He got to a mountain, and after nightfall went into a cave to camp overnight. On feeling around in the darkness he found some one else there, and said to himself: "An enemy." To make sure he asked by touching the skin of the other's forearm. The other by wiggling his finger on the Gros Ventre's chest signified: "I am a Snake Indian." So the Gros Ventre took the Snake's hand and made the sign of "big belly" to signify: "I am a Gros Ventre."

The Gros Ventre then said to the Snake: "Let's not fight tonight. You go to sleep and I'll go to sleep. Tomorrow morning we'll see what we'll do." But being afraid of each other, neither slept at all during the night.

The next morning the Gros Ventre asked the Snake: "Friend, where were you going?" He replied: "On the war path." "Alone?" "Yes, all alone." The Snake then asked the same questions and got the same answers. Then the Gros Ventre said: "We are both alone. Instead of killing each other, let's gamble with the wheel. The loser loses his scalp to the winner."

So they started to play, with such things as bow and arrows and clothing for stakes, and the Snake won everything from the Gros Ventre. Then the Gros Ventre proposed: "Friend, you stake all you have won, in a lump, against my scalp," and this was agreed upon. At this point the Gros Ventre got afraid he would lose, so

he prayed to Iˣtcibiniạ't'ä, the Supreme Being: "Have pity on me, so I may beat this man. I'll make a Medicine Dance when I get back home." And as he prayed, he took his arrow and the wheel, and put the arrow on the winning bead of the wheel, and prayed to the Supreme Being that when the wheel was rolled it would fall just that way on the arrow. So when the Gros Ventre rolled the wheel, it fell as he had prayed it would, and he won back all that he had lost.

Then the two men started all over again, and this time the Gros Ventre won everything from the Snake. So the Snake in turn proposed: "Friend, you stake all you have won, in a lump, against my scalp." They played again and the Gros Ventre won.

The Snake then said: "Now you have won my scalp. Tie my head around [at the level of the forehead], then take your knife and cut, and pull off my scalp. And after my scalp is off, go to that hill yonder and wave it at me and sing. Then you go back home and I'll go back home." All this the Gros Ventre did. But before leaving, he said to the Snake: "My friend, you came from a long way off. So did I. It is bad enough that you have lost your scalp. So I am going to give you back some of your things that you'll need on your way back home." So the Gros Ventre gave him back his robe, moccasins, bow and arrow, and knife, saying: "You'll need these."

3. The 2-Button Hand Game

The wheel game, as played and gambled on in really big contests by outstanding enemy friends, was in some respects the supreme gambling game of the Gros Ventre. It was supreme at least in the intensity of interest it aroused as a spectacle and supreme in the value of what was won and lost, not merely the great amounts of property wagered, but, still more, such prestige and status or loss thereof as could make or break the contestants' careers. On the other hand, as regards everyday popularity, frequency of use, and range of participation, first rank in the gambling complex was held, it clearly appears, by the old 2-button hand game, the predecessor of the modern non-gambling 4-button hand game. In the following pages we shall use the term "hand game" without qualification to designate this earlier pre-Ghost-Dance hand game proper.

The hand game could be played at nearly any time. There were no set occasions for it, though some were more favorable than others, especially inter-tribal gatherings. Commonly a game started just with some one proposing: "Let's gamble." So somebody would go to the nearest bush and cut the required twelve sticks, each about a foot in length, for counters. Sometimes the bark would then be peeled off the sticks and the ends thereof squared, but this was not necessary. Then agreement was reached on what would serve to hide as the two required "buttons"—such as a bit of "sun-shell" off an earring for the "short" button, and an end of horn off a bracelet for the "long" button. There

had to be two buttons, a "short" and a "long" one.[6] Very commonly the game
was played inside a lodge, with the main center of interest opposite the door,
but outdoor playing also occurred frequently.

When the game took place inside a lodge the arrangement and line up were
about as follows. The twelve counters were in one pile at the rear opposite the
door. The two teams, of any number each, were lined up from rear to door
facing each other, with a tent pole or sections of one before each team to beat
time upon and with the wagers placed in view of all between the teams. Each
team had its own tally keeper, guesser, hider, assistant hider, and other team-
mates, ranged in the foregoing order from the counter pile toward the door.
We shall call these teams A and B with their respective A and B tally keepers,
guessers, and so forth.

The game began with a gambling song, sung, to the measure of a small hand
drum and/or beats with sticks on the tent poles lying in front of the teams, by
all present, team members and spectators. In 1940 we recorded, as part of a
series of 116 Gros Ventre songs, two such gambling songs, sung by The Boy.
These two songs are wordless, except for a short sentence or phrase in the middle
of each. The wording of one is: ą́niti be´taną (general sense: "It's no use you
trying to guess me; I'm 'holy' "). The wording of the other, incomplete (as
The Boy could not recall the full native text) is: ą́tibdjī nǫ́nǫ'tsǫnen ("dogs"
"wet legs": allusion not known to The Boy; the full wording was literally:
"dogs wet-legs little-legs"). The tunes are lively ones sung in fast time. Only
certain songs could be sung in a gambling game; doctors' songs or Medicine
Dance songs were taboo therein. If one of the players had his own gambling
song gotten from a prairie chicken or ghost (see *infra*), he would start it and the
others (only of his own team or side ?) would sing it with him. In the excite-
ment of a game well under way, grunts would often take the place of songs
proper.

Each team selected its best player. One held the short button, the other
the long one. Player A (of and for team A) hid his button in one of his hands,
putting on a show with motions, feints, and so forth. Player B (of and for
team B) went through his own show, and finally guessed by pointing. Then B
hid and A guessed him. If both guessed correctly or both incorrectly, they each
hid and guessed again, and they kept this up until one had guessed correctly and
the other incorrectly. So one won the preliminary, and the tally keeper of the
winner's side, let us say team A, took four counters from the pile and laid them
on his side. The preliminary win also gave the winner's team the right to hide.

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6 Illustrations of buttons and counters in Culin, *op. cit.*, figs. 345-348, p. 271.

Next, hider A and assistant hider A each took one of the two buttons and put on their show together, while team A and only team A sang, this time a song different from the one sung by everybody together at the very start of the game. The rule was that after the opening song before the preliminary round, only the team whose turn it was to hold the buttons to hide could sing. Guesser B watched the two hiders closely, scrutinizing their motions, eyes, expression of countenance, everything, for clues. If he came to the conclusion that hider A had one button hidden in his left hand and assistant hider A the other button in his right hand, guesser B so indicated by pointing with his thumb to hider A and at the same time with his index finger to assistant hider A. Suppose he guessed incorrectly in both cases Tally keeper A would then take two more counters from the pile and team A would cheer, shout, and get up and dance around. Team B would begin to get scared, as team A would then have won six of the twelve counters.

If in the next play, guesser B indicated one of the two hiders A correctly and the other incorrectly, team A got another counter, thus leaving five counters in the pile. The hider A (hider or assistant hider) who had not been guessed this last time then took both buttons and worked with them; if guesser B pointing with his index finger for the long one and at the same with his thumb for the short one, guessed wrong, team A won one more counter, and then both hiders A would hide. By this time guesser B would be getting more and more worried, and the supporters of team A might be booing and twitting him: "Those [of team A] are winning and winning."

Let us say guesser B lost again on the double guess; then team A won two more counters (it would now have ten of the twelve). Guesser B might here appeal half-seriously to his supernatural helper, if he had one: "What is the matter with you, prairie chicken (or ghost)? You are failing me."

As neither had been guessed in the last play, the two hiders A would both hide again—interchanging the buttons perhaps, signaling between themselves, making quick motions, and so forth. Suppose hider A was then guessed correctly, but assistant hider A incorrectly, then team A would win another counter, and only one would be left in the pile. Excitement would here reach a climax. Assistant hider A, who had not been guessed just before, would then take both buttons. Let us assume that guesser B finally guessed him right and thus saved the day at the last minute. His side B would cheer and cheer. The one last counter would remain in the center between the two tally keepers, but now B got a chance to win counters.

If team B then won two counters on the next play, in which guesser A did

the guessing, tally keeper B would take the one counter remaining in the center and also draw one counter from team A's won counters. And so the game went back and forth, one or two hiding at a time according to rule, until one team won all the twelve counters.

A session of hand games might go on for many hours; starting, say, in the morning it might continue throughout the whole day and through the night until the next morning. When any of the players or supporters got hungry, they would go home and eat and then return to the game. After a game in which the twelve counters and stakes were won, and before the next one, there would usually be a little time out for a rest and smoke, and for the placing of bets on the next game.

The atmosphere of the hand game was a holiday one. Raillery was a little rough at times. But for players and spectators, the game was a major source of enjoyment, relaxation, and pleasurable excitement. What with the singing, the drumming, the twitting, the shouting, the often loud and uproarious cheering, the hand game—in rather sharp contrast to the quiet, grave wheel game—was apt to be decidedly noisy, not to say boisterous. Not the least appreciated feature of the hand game was the showmanship, the grace and virtuosity of the players, who played to an appreciative and discriminating house. The victors gloated conspicuously over the losers and bantered them unmercifully, but the losers were expected to keep their tempers, an expectation, however, not always realized.

For success in hand game gambling, most players, it seems clear from our evidence, relied on chance and skill—an occasional one on sleight-of-hand proper—rather than on supernatural power or aid. So far as we could determine, the drumming and singing that accompanied the playing were not of the magico-religious order, at least ordinarily and apart from the exceptional games in which individuals with supernatural power (see *infra*) participated. Certain individuals were, from native keenness or from practice and experience, particularly adept at hiding and guessing, and these were apt to play the role of hiders and guessers for their teammates and backers.

Some few men, however—never women, we were informed—had supernatural gambling power. This power might come unsought, as in the case of Keg to be given presently, or, more commonly, was sought. Not many sought it or possessed it. The young were strongly advised against seeking it by their parents and by the tribal counsellors, for the man who sought and obtained it had to pay a heavy penalty. He would be affected with some serious ailment of the limbs, such as pains in and swelling of the joints, and would die before his

time. This latter aspect of the belief accorded with the larger Gros Ventre pattern: any acquisition of special supernatural power sought by quest would be apt to lead to shortening of life.

Nevertheless, against the reiterated advice of parents and elders who would so lecture the growing children and of the chiefs and counsellors who would walk around the camp so warning the people, a good many individuals would seek supernatural power, and a few would go out in quest of supernatural gambling power. In some cases such gambling power was sought by a man who had lost heavily or lost his all at the wheel or hand game, as a desperate measure to recoup his losses and to get a new start in his career.

Gambling power was not sought from the Supreme Being, who apparently did not enter at all into the gambling cycle. The appeal to him in the previously given traditional story of gambling for scalps is more a confirmation of than an exception to the rule. Nor was it sought as other power—to be a great warrior or doctor or to acquire wealth or to live long—was sought, by fasting and dreaming on the hill tops. The seeker for gambling power resorted to the brush and timber along watercourses to obtain it from the prairie chickens, or from a ghost. It was more commonly gotten from prairie chickens; but not infrequently from a ghost, not an ancestor of the candidate, at least not necessarily, but, as The Boy put it laughingly, from "any good-natured ghost." This power was gotten for use only in the hand game, not in any other gambling game or sport.

Usually the seeker looked for a place where wild morning glories formed a sort of bower, "like a little lodge or tipi." It was in there that a ghost was believed to live; the morning glory was called tzek'unθänãdzu, "ghost rope" (tzek'ʰ or tsá·kʰ, "ghost"). The seeker would cry and cry, and when he got sleepy he would crawl into the bower and sleep. Pretty soon a ghost or prairie chicken might ask him: "Why are you punishing yourself so much?" He might answer: "Because I have lost all my belongings." "Is that all? Well, I will help you out," the being or beings would say, and then would give the seeker a song and tell him what rules he must live by and how he must act in the hand game. The person who got such power would not afterwards reveal the details told him by the giver. From the prairie chicken or ghost the person might also get at the same time the power to do marvelous things, such as making an object disappear, swallowing it and then drawing it out of some part of his body, making it go into his skull and come out of his mouth into his hand or go through his veins and come out somewhere else on his person, and so forth (cf. Red Whip story *infra*.)

Gambling power was of a lower order of dignity and solemnity than power obtained by fasting on the mountains and hill tops. It was taken less seriously, more lightly, and, if we may judge from attitudes today, with an undercurrent of amused jocoseness. It was not, as was power gotten on mountains, transferrable by the original possessor to another, or at least it was not transferred. For one reason others did not usually want it, on account of the ailments and shortened life its possession entailed. A man who was known to have such power was further handicapped: his fellow tribesmen would not ordinarily gamble against him and so his opportunities for participation were few, being limited mostly to games played by the Gros Ventre with other tribes. In such intertribal games, however, he would become a popular champion, and would derive therefrom a certain prestige as well as material gains. The possession then of gambling power, while to a certain limited extent an asset to its owner, was in more respects than one a decided liability.

It may be added here that while those who possessed supernatural gambling power are spoken of today by English-speaking Gros Ventre as "professional gamblers," in reality there were no professional gamblers among the Gros Ventre even in the old days, professional, that is, in the sense of making their living or most of their living at gambling.

The following three narratives, related by The Boy, illustrate various aspects of gambling power.

Narrative 1. Lone Bear, The Boy's wife's father, had gambling power. While he was still in his prime, his legs started hurting him. To escape the penalty he quit gambling. But in vain. His legs went bad, and he died before his time.

Narrative 2. When Lame Bull, The Boy's father, was a young boy about ten years of age he had a friend of about the same age, called Keg, to whom he was much attached. Keg, like other boys of his age, had the daily chore of rising long before daylight and driving out the family horses away from camp to graze. One morning he was awakened very early and was told to drive the horses out. He did so, but when he got out to the grazing ground he decided to steal a few winks lying face down. So he fell asleep, and all at once he started to dream. He dreamed that he saw a big hand game going on with high stakes and one fellow winning everything. Keg looked at this fellow closely and saw it was he, Keg, himself. This man spoke to Keg saying: "Do as you see me doing here. Use my throat as an object [button] to hide."

Then Keg woke up and looked around, and there right near where he lay he saw a covey of prairie chickens doing their mating dance and making a whirring noise with their tails. When he got back he said to Lame Bull: "Let's play and see whether what I dreamed is true. I'll put my helper to the test." Lame Bull tried to guess Keg, but Keg would make a noise like a prairie chicken and thereupon

would switch the button to the other hand without Lame Bull perceiving it, and Lame Bull could not guess him.

So as the two grew up, Lame Bull always bet when Keg was playing and won a lot of stuff that way. Keg started gambling from his boyhood and always had luck. After he grew up, however, he did not have many chances to play, because everybody, knowing his power, shied away from gambling against him. But when he did play, he would win. When he was resorting to his power in a game, he would imitate the hissing, swishing noise made by the prairie chickens when they ruffle their tail feathers. The prairie chicken had also given Keg its windpipe to use (apparently as a button) in the hand game, and for it Keg used a little metal spring resembling the windpipe.

Narrative 3. During the lifetime of Red Whip (d. 1912), the Gros Ventre on one occasion, about 1873-75, met the Flathead where Lewistown (Montana) now is and camped close together. The latter asked the former to gamble at the hand game. So when night came, they all assembled in a big lodge. The Flathead had a great gambler, nicknamed Crazy Child, who had gambling power and had never been beaten by anyone on the west side of the Rockies. Outside the lodge the young men of both tribes were visiting in a friendly fashion together, and the Flathead young men told the Gros Ventre young men: "Don't get into that game. Our man cannot be beaten," and some of the latter on that account refrained from betting. But the Gros Ventre had a man of their own, Red Whip, who had gambling power from a ghost, greater gambling power than Crazy Child had.

So the hand game started, with big stakes wagered on both sides. Neither champion showed his prowess right away; they just let themselves run along easily for a while. At last Red Whip decided to cut loose: "This Flathead makes me mad. He has hand game power. So I'll have to use mine. Give me a piece of weasel skin and I'll stop his power." They gave him a piece and he rubbed off a small bit of it and put it on the ground and knelt on it with one knee.

Crazy Child, whose hand-game helper was the owl, used every trick his helper had taught him, to hide the button and battle Red Whip, but to no avail, for Red Whip's ghost helper was more powerful than Crazy Child's owl helper. Then Red Whip, when his turn came to hide, said to the Gros Ventre, "I have this Flathead beaten and I know his helper, the owl, has abandoned him; so sing good and loud and beat time fast and lively," and to the Flathead, "Watch closely, and I will let you hunt for the button after I have hidden it." Red Whip then put on a big show, exhibited the button to the Flathead, threw it into the air, and told him to look for it. Crazy Child hooted like an owl and did all sorts of other things like an owl, but finally gave up: "I can't find the button," at which the Gros Ventre cheered uproariously. Then Red Whip got up, showed the Flathead the button, which was embedded in the lodge pole to the left of the door as you go out, and asked him to pull it out. Crazy Child tried to pull it out but failed, but Red Whip pulled it out easily, and said to Crazy Child: "You are nothing. You are just a little fellow. You don't amount to much. I didn't have to try hard to beat you. But I just wanted to show you this."

This great game lasted one whole night; daylight was breaking when the two

men called on their helpers. The Gros Ventres won many things of value: many best horses, guns, and clothes; and no Gros Ventre ever gambled against Red Whip after that.

Men, women, and children could participate in a hand game played by men. All, with an exception or two to be noted, could bet thereon, and men and women could bet on both sides. In a game where the men were players, the women would be present and would join in the singing as well as in the betting, but they could not be guessers, hiders, or tally keepers; only men could be such. Women, however, could so function in hand games among themselves.

Actual participation in hand game gambling was high. One of our women informants, Mrs Warrior, never went in for betting, she emphasized; but she seems to have been rather exceptional in this regard. Our other woman inform-ant on gambling, Mrs Sleeping Bear, was much devoted to gambling, for relatively small stakes. Nearly every one, so far as we could make out from our evidence, seems to have gambled, either frequently and habitually or at least from time to time.

Participation, however, followed a well-defined and established pattern as regards who could or should bet with or against whom and for what kind of stakes. For convenience we are calling this the "bettor-wager pattern."

Some persons or classes of persons could not gamble at all or could not gamble against certain others; others could or would gamble against certain others only for refreshments or a meal; others, for small stakes of little value; others still, for big stakes. The Gros Ventre bettor-wager pattern at first glimpse looks complicated, but actually it conforms to a few very simple prin-ciples. We shall look first at the pattern itself; afterwards at the principles.

Blood relatives could not gamble against each other either for large or for small stakes. Such blood relatives included parents and children, grandparents and grandchildren, brothers and sisters, uncles and aunts and nephews and nieces, and also all classificatory relatives of the same categories. At most a group of blood relatives might engage in a hand game with the half-serious half-playful agreement that the losing side would "cook" for the winning side. A given gambling team would commonly be composed chiefly of members who were kin to one another, but non-relatives could also be on the team; the opposing team would likewise be commonly composed chiefly of another kinship group. Where blood relatives gambled in the same game for small or large stakes, they always gambled and bet, not against one another, but on the same side, and in wagering they bet on and backed their own kinsman or kinsmen, wagering dyadically against fellow tribesmen or aliens not related to them.

Gambling between blood relatives for property the loss of which would hurt or would entail even small hardship on the loser was evidently looked upon as conflicting with the common loyalty and mutual helpfulness among all blood relatives that were expected by the Gros Ventre social code. The Gros Ventre felt, furthermore, that such gambling might easily give rise to quarreling and ill-will among relatives, whereas the code expected harmony and good will.

As regards affinal relatives, the rules were more complicated and less uniform. Loyalty, helpfulness, and harmony were desired and expected among close relatives by marriage, but the avoidance, respect, and familiarity conventions differed.

A son-in-law could not gamble at all against his mother-in-law, even on different sides for "cooking" for the winners. On the one hand the rule of respect and avoidance was the most rigid and absolute within the avoidance regulations: they could not look at or speak directly to each other, and could not be in the same lodge together. On the other hand they were expected to be very good and generous to each other. It may be added that these restrictions on the son-in-law applied also to his brothers, presumably too to the mother-in-law's sisters, although we failed to inquire about this last point.

As regards all other relatives by marriage, they, even those prohibited from gambling even for small stakes, were permitted, it seems, to gamble as members of groups against one another where the stakes, if they can really be called such, were merely the above-mentioned "cooking" by the losing side for the winners. Some affinal relatives, however, such as father-in-law and daughter-in-law could not engage in a non-group twosome game, even for fun, just as brother and sister could not do so.

A son-in-law and father-in-law could not gamble against each other even for small wagers; the former could not gamble with the latter's brothers or even his close friends—and presumably vice versa, the father-in-law could not with the son-in-law's. Nor, as mentioned, could daughter-in-law with father-in-law. A son-in-law and father-in-law were under certain restrictions of respect and avoidance but not so absolute as those between son-in-law and mother-in-law; the two men could discuss "business" matters with each other, but could not just sit down and chat together about trivial things and especially about anything concerning sex or the eliminative functions. And about the same rule held for daughter-in-law and father-in-law in their personal relations.

Two brothers-in-law, two sisters-in-law, or a brother-in-law and his sister-in-law (wife's sister or brother's wife) could gamble against each other for small

stakes, but not for really large ones. A gambling game between two brothers-in-law, small though the stakes had to be, was a good show for the onlookers—not, however, nearly so good as one between two prominent enemy friends. Two sisters-in-law were also "just right" for gambling against each other.

Through all these three relationships run two currents: one of mutual goodwill and helpfulness, the other of familiarity, "teasing" and twitting. Between two brothers-in-law and two sisters-in-law there is relatively more of the first and less of the second; between brother-in-law and sister-in-law relatively more of the second and less of the first.

Two brothers-in-law could not discuss sex or vulgarity and could not go to the toilet together. They would be helpful to each other in giving presents, in a building project, in business matters, and so forth. But on the other hand they could go quite far in "humiliating" each other, in indulging in practical jokes and horse play at the other's expense, and in rivaling each other in war and in war-deed matching contests—but not to the limit, not so far as enemy friends could go. Two sisters-in-law could likewise "tease" each other, but could not go to the same length that brothers-in-law could go.

To her brother-in-law (sister's husband or husband's brother) a woman could go nearly any length in "teasing" and freedom in the way of crude horse play and of vulgar and obscene talk, and vice versa.

The gambling rule that prevailed, and still prevails largely, between these three types of siblings-in-law, namely, gambling for small stakes permitted and encouraged, but not for large stakes, appears to be genetically related to the two currents we have been discussing: the goodwill one prohibiting stakes whose loss would really hurt, the familiarity one permitting and provoking small-stake gambling.

The Gros Ventre, with a population range of between about 800 and 2,000 in the second half of the last century, were divided into about a dozen bands. These bands were not sibs proper, but each was composed largely of kin related by blood or marriage. Members of a given band, whether related or not, would not gamble against one another. There was a well-marked we-feeling among the members of a band, somewhat distinct from and additional to the kinship feeling proper. Actually this was almost equivalent to "tribal" we-feeling, for each band was for the greater part of the year, particularly in the winter months when the bands scattered to separate quarters within the tribal territory, an almost completely autonomous economico-political unit, and any band was free if it wished to secede from the tribe at any time, temporarily or permanently.

Members of one band could and not infrequently did gamble both for small and for big stakes against members of other bands, just as one kinship group used to gamble against others. Tribal we-feeling certainly existed, but seemingly not as intense as band we-feeling, just as, in turn, the latter was not as intense as kin we-feeling. In inter-band, as in inter-kin, gambling, spectators, if they bet at all, would lay their wagers on the players of their own band, as required by band loyalty, regardless of the relative skill and reputation of the contesting players or teams.

For Gros Ventre men who had reached full adulthood and were still in the prime of life, there were two age-societies, called the Stars and the Wolves (or Wolf-men). These two groups, with soldier-police functions, would join forces when necessary in keeping order, in fighting fires, and in defending the whole tribe against enemies, but for the rest rivalry between them was pretty keen. Stars would gamble against Wolves in big games for large stakes, but ordinarily a Star would not gamble against a Star or a Wolf against a Wolf, except for refreshments or a smoke or similar trifling "stakes." Inasmuch as membership in the two societies cut across the lines of kinship and band membership, inter-society gambling suffered an important restriction: if a Star were gambling in a given game, his relatives among the Wolves would not play or bet against him in that particular game. Kinship ties took precedence over society ties.

Gros Ventre would of course gamble for big stakes against members of other tribes with whom they happened to be at the time on sufficiently good terms, or at least not bitterly and actively hostile, to meet and foregather peacefully, such as the Piegan, Flathead, Nez Percé, and Cree. In such intertribal contests they would often go out to win every possession of their opponents.

The Gros Ventre distinguished three kinds of friends: ordinary friends, true or pledged friends, and enemy or war friends. As a rule ordinary close friends would not take opposite sides in a big gambling game. This was all the more true of pledged friends. Two boys, for instance, who liked each other and who had perhaps grown up together would, though belonging to different bands, enter into a sort of "sworn brotherhood," give each other presents, exchange intimate confidences, and promise, without religious rite of any kind, to stand by each other always, even to death if necessary. Two girls could also enter into a similar pact. Such "true" or pledged friends never gambled against each other either as players or as backers, at least never for stakes of value.

Of enemy or war friends we have previously spoken when describing the wheel game. Two enemy friends would gamble against each other for small stakes or big, the bigger the better. In fact a hand game for big stakes between

two enemy friends to strip the loser bare of everything he owned, down to his very lodge, was, like a wheel game of the same order of magnitude, a crowning event in Gros Ventre gambling, one arousing most intense popular interest. One of our informants was, in view of this fact, of the opinion that gambling among the Gros Ventre may have been first invented by enemy friends.

The keepers of the two most sacred pipes, the Flat Pipe and the Feathered Pipe, were not allowed to gamble with any one, nor were their wives, nor (probably: our chief informant was not sure) ex-keepers. Rare exceptions may have occurred in practice. Should an enemy friend of a keeper taunt him into betting and should the challenger lose, he would lose not only his wager but also in a sense his life. For his life would in consequence be shortened, unless the keeper took pity on him and through submitting him to the appropriate ritual procedure averted the penalty. It was believed too that the keeper could not lose if, against the rules, he really did gamble. Gamblers, at least notorious ones, were not selected as pipe keepers.

Keepers and their wives were subject to a great many other restrictions. They had to maintain a high degree of dignity, to practise many kinds of abstention and "asceticism," and to be benefactors to and intercessors for all the people. It seems probably that the taboo on their gambling was related to one or more of these aspects of the keepership.

Ritual "grandfathers" among the Gros Ventre were of two kinds. A retiring sacred-pipe keeper became automatically "grandfather" to the incoming keeper and instructed him in the ritual, prerogatives and duties of the keepership; a candidate for a sacred lodge chose an older man who had been through the rite as a ritual "grandfather" who would instruct him in the ceremonies and observances of the lodge in question. A person would never gamble against his ritual grandfather. The relationship established between grandfather and grandchild in both cases was predominantly a respectful and sacred one. Against his ritual grandfather a man would not even play in the modern non-gambling 4-button hand game.

The foregoing rather intricate "bettor-wager" gambling pattern appears to be the result of the orderly interplay of five chief determinants or conditioning factors.

The most important and most basic determinant was that of in-group altruism, cohesion, and loyalty, decreasing in intensity from closer and smaller circle to more distant and larger circle, from biological family, to kinship group, to band, to lodge and society, to tribe as such, to more or less friendly alien tribe, and stopping short of hostile alien tribe. In general, the less intense the

we-group altruism, cohesion, and loyalty, the more gambling and the greater the stakes and vice versa.

Two less important, secondary determinants were the rules of avoidance and respect on the one hand and those of familiarity and license on the other. In general, the greater the degree of avoidance and respect demanded between two persons or classes, the less gambling and the smaller the stakes; the greater the degree of familiarity and license permitted, the more gambling and the bigger the stakes.

A fourth determinant was the element of the sacred (and/or ascetic) associated with certain offices and with the persons occupying them, an element which barred gambling by and/or against these persons, namely, pipe keepers and ritual grandfathers.

A fifth determinant was obviously in operation, although the field evidence therefor is not abundant. We got no record, however, of Gros Ventre gambling with their ancient, hereditary and bitter enemies, the Sioux. Gambling, even to strip opponents completely, presupposes a minimum of friendliness between the players, or at least the absence of deadly and unqualified hostility.

If we diagram along a horizontal belt the full range of human relationships from unqualified friendliness and altruism on the extreme left through the various gradations to unqualified hostility and malevolence on the extreme right, Gros Ventre gambling may be represented on this belt as absent from the extreme left end, gradually increasing in frequency and in size of stakes as we pass along the central section toward the right, and then suddenly dropping and completely disappearing near the extreme right end.

Besides these five determinants or conditioning factors in Gros Ventre gambling, there were perhaps others, but this is as far as our evidence and our analysis thereof have gone. Of course, one cannot have gambling without some kind of close-range or long-range contact between the gamblers, without some kind of property or other valued thing to wager, and so forth, but working out a list of such requisites would be labor lost.

Before leaving this subject, we should emphasize that, while the preceding pages have referred particularly to the bettor-wager pattern as holding for the hand game, the same pattern held as well for all other Gros Ventre gambling games and contests.[7]

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7 In our world sources on gambling we have noted only two explicit references, and these extremely brief, to the bettor-wager pattern: G. Goodwin, *The Social Organization of the Western Apache* (Chicago, 1942), p. 375, "certain types of gambling" are prevented "between members of the same clan," for it would be "like winning it [property] from yourself"; R.

NATIVE ATTITUDES

The attitude of the Gros Ventre toward their own gambling was a somewhat ambivalent one. Toward gambling practised within the limitations of the bettor-wager pattern, there was, by and large, no strong disapproval. Such gambling was in the main taken for granted. Yet such approval as was given, even as regards much of the gambling that conformed to the bettor-wager pattern, was in certain respects qualified and circumscribed.

Pretty near everyone gambled who had anything to wager. Boys and girls, men and women participated. We recorded only one specific exception, in the person of Mrs Warrior, although there may have been others. There appears to have been no disapproval at all of gambling for "cooking," and very little of gambling for takes of trivial or small value, within of course the bettor-wager pattern. There was a good deal of disapproval of gambling for big or ruinous stakes—how widely shared, how serious, and how "intolerant," it is hard to say.

Parents, however—some at least—commonly counseled their children against

Landes, *The Ojibwa Woman* (Columbia University Contributions to Anthropology, vol. 31, 1938), p. 28, differences between gambling by members of same household and by persons from different households. Under date of September 9, 1939, Father Herbert Prueher wrote to Cooper that among the Wachaga of Tanganyika Territory, East Africa, gambling is [only] by non-relatives, distant friends and strangers; under date of June 30, 1944, Father Berard Haile wrote that among the Navaho no gambling occurred between relatives or between members of same clan.

In short reconnaissance field studies among the Sinkaetku (Southern Okanagon) of Washington, the Kalispel of St Ignatius Mission, Montana, and the Blackfoot of Browning, Montana, in 1938, and the Assiniboine of Ft. Belknap Reservation, Montana, in 1939, Cooper gathered the following fragmentary data on the respective patterns:

Sinkaetku: No gambling against one's brother, sister or cousin: "If my brother wants anything I have, I say to him, 'Take it,' without any question." No gambling between members of same family, nor between members of a group wintering together. Not right to gamble except with "strangers." Intertribal gambling for big stakes customary.

Kalispel: No gambling between brothers. No twosome gambling between cousins, but cousins might gamble as members of opposing teams. Two teams from same village might gamble sometimes, but not often. Gambling is mostly between teams from different villages or tribes.

Blackfoot: Two brothers or two members of same band could gamble against each other only for small stakes; two members of different societies, such as the Brave Dogs and the Doves, could gamble against each other for big stakes, such as horses.

Assiniboine: Blood relatives, such as brothers and other close relatives, would not gamble on opposite sides against one another; they would gamble on same side always. Two brothers-in-law or two sisters-in-law could gamble against each other, but a son-in-law could not gamble against his father-in-law or his mother-in-law on account of current avoidance and respect conventions. Intertribal gambling is customary.

In our own American white culture there are clear indications of a bettor-wager pattern in gambling. No systematic field study thereof has, however, been made, so far as the present writers can discover.

gambling, even for the small stakes, mostly arrows, which children could put up. Further, advice against gambling was commonly given by tribal leaders as well as by relatives and friends, presumably with more particular reference to gambling for high stakes.

Excessive or inveterate high-stake gamblers easily lost the respect of the people and were looked down upon. Such were not likely to be chosen as "chiefs," and could not be chosen as keepers of the sacred pipes. The possession of gambling power from prairie chickens or ghosts netted the possessor a certain prestige, but not nearly the prestige that came from achievements in war or medicine, or even from skill in hunting. Keg, whose story we have given above, had little real prestige, we were told. Red Whip had more, it seems, but this or much of it may well have been the result of his outstanding war record.

The foregoing ambivalent attitude can, we believe, be accounted for, in large part at least, by the data we have, incomplete though these data are. It is pretty clear from the prevalent bettor-wager pattern that the Gros Ventre recognized two more or less conflicting aspects of their gambling: a recreative one and a predatory one. Certain kinds of gambling were indulged in predominantly for friendly recreation, to have a good time together. The minor wagering therein merely added a little spice and zest to play, while the losers suffered no appreciable loss or hurt. Other kinds, the common games for large stakes and the occasional ones for career prestige, were indulged in predominantly for gain and this at the expense of the losers, for acquisition in which the losers suffered losses that were grievously felt and that seriously hurt. As the bettor-wager pattern shows, gambling of the first kinds was recognized as consistent with the accepted canons of in-group altruism and benevolence; that of the second, as inconsistent therewith.

Actually gambling contributed both to social concord and solidarity and to social discord and disunion. It must have contributed in some measure to social concord and solidarity inasmuch as it provided a large measure of pleasurable recreation and excitement shared in common and a relatively innocuous outlet for aggression and dominance. The Gros Ventre were consciously concerned with fomenting solidarity within their ranks: for one thing they were a fighting people beset with powerful enemies. But whether they were aware of the role their gambling played in positively and constructively promoting solidarity is not possible to say on the evidence we have and at this distance of time.

As regards, however, discord resulting from gambling, this was common and they were keenly aware of it. The code demanded that losers should take their losses, together with the associated twitting and strutting by the winners, in good

part and as good sports, but actual behavior not infrequently fell short of the code's demands. Bad feeling was at times engendered and could and did end in blows and violence, as was noted earlier in our account of the wheel game. Quarrels among gambling boys must have been fairly common. One of our informants, Thick, recounted three different bow and arrow contests for arrows, in which contests he had engaged as a boy with other boys. All three ended in violence started by the losers. In one of the three set-tos, Thick, the winner, was shot in the hand with an arrow by the other boy who lost his temper, and Thick still, at the age of 75, carries the scar. That the Gros Ventre were perfectly aware, as of course they must have been, of the discord hazard in gambling, is clear from such counsel as, for example, Thick's mother used to give him when he was a boy: "If you join in those gambling games somebody is going to get mad on account of getting beaten and he may pound you up." Further, that gambling often led to bad feeling was given to us by The Boy as the reason why the Gros Ventre disapproved of gambling between relatives.

So far as we could make out, Gros Ventre attitudes on gambling were determined in only minor measure by economic considerations. In the days before the disappearance of the buffalo in 1883-84, the Gros Ventre lived under a normal economy of abundance. Moreover, generosity in parting with their possessions, through gift and sharing, was focal in code and practice. Criers around the camp would counsel the people in words such as: "Men and women, don't love your property. You will always acquire other property. Only life never comes back, but property you can have back any time." In the long run for most individuals winnings would balance losses, just as gifts tended to balance gifts—a system of exchange which incidentally must have served to prevent unhealthy accumulation of wealth in the hands of any individual or small group. The cases of really ruinous loss of property through gambling, of reduction to "pauperism," appear to have been rare, and even in these cases the losers would ordinarily be looked after temporarily and tided over by their kin or friends. At any rate we got no record of individuals or their dependents suffering grave privation of the necessities of life as a result of gambling losses.

How far such facts entered into the Gros Ventre attitude toward gambling cannot be determined confidently from such evidence as we have. In our hours of free discussion with informants, there was almost no intimation of economic considerations leading to disapproval. One of the themes in the tongue-lashing Lame Bull got from his father after the disastrous contest with White Owl may have been the economic, but this was not expressly stated by The Boy. Mrs Warrior kept away from gambling because, she said: "I liked what I had and

did not want to lose it," and her grandmother used to advise her against gambling lest she lose valued things. All in all it looks as if economic considerations had little to do with such disapproval of gambling as was current among the Gros Ventre; if anything, economic considerations and concepts of property use and disposal would in the main have reinforced approval.

To sum up, Gros Ventre attitudes on gambling appear to have been influenced very much by concern for altruism and accord, very little by economic values.

PAST AND PRESENT

To round out the picture we have tried to give of Gros Ventre gambling, we are adding a brief sketch of its history.

Gros Ventre myth, folk lore, and tradition have little to say on gambling. According to one folk story, given by Mrs Sleeping Bear, but unknown to Mrs Warrior, the hand game was first gotten from the thunder by a certain Tsē·ganis (Little Short Horns). There is no reference to gambling in the fairly complete cycle of sacred myths we gathered or in the trickster (Nihā̀ç'ª) cycle.[8] This absence, particularly from the trickster cycle, may give some slight ground for suspecting that gambling may not go back very far in Gros Ventre culture history.

Apart, however, from such speculative surmise, what is clear is that gambling was in full vigor among the Gros Ventre in the second half of the last century, and had been since at least around the early part of the century. It was in full swing from at least the early boyhood days of Lame Bull who was born in 1825.

Gros Ventre gambling, especially with the wheel and hand games, suffered a severe shock after the disappearance of the buffalo in 1884, as did the main structure of Gros Ventre culture and society. With the rapid collapse of the broad framework into which gambling had so trimly fitted, gambling itself, especially with the older games, rapidly toppled down. The last big wheel game remembered by five older informants—The Boy, Thick, Charles Buckman, Steven Bradley, Philip Shortman—occurred in 1893; the last big hand game in 1891.[9] Around the turn of the century not much of the older complex was

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8 Gambling does however occur in the Found-in-the-Grass Gros Ventre folk story, according to The Boy. Gambling at the wheel game between Clotted-Blood and the Bull is recorded in the Clotted-Blood tale, by A. L. Kroeber, *Gros Ventre Myths and Tales* (Anthropological Papers, American Museum of Natural History, vol. 1, pt. 3, 1907), p. 86.

9 When in the field we failed to obtain these exact dates. We are indebted for them to our conscientious, high-minded and exceptionally able interpreter, Thomas Main, who procured them for us from the above five elder informants and forwarded them to us with some other supplementary information by letter of September 25, 1946.

left, although we still have reports of a hand game between the Gros Ventre and the Flathead, staged at Glacier Park, Montana, as late as 1922, in which Joe Assiniboine represented the Gros Ventre. Today neither the wheel game nor the 2-button hand game is played.

Hard times, for a short period near-famine conditions, prevailed for a while after 1884; an economy of abundance gave place to an economy of scarcity. While a world survey of gambling reveals, so far as we can discern, no significant correlation between gambling and abundance or scarcity economies, extreme and sudden economic shock and shift, such as occurred among the Gros Ventre in the years immediately following 1884, may well have slowed up the gambling pace.

Around 1897 the non-gambling hand game was introduced, won favor, and persists down to the present. Today there is little gambling among the Gros Ventre on the reservation. Most of what occurs among them takes place off the reservation, at nearby white villages and towns, in the form of poker or other card games for money, between Gros Ventre and whites.

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TWANA KINSHIP TERMINOLOGY

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THE TWANA, Salishan-speaking natives of the Hood Canal area in western Washington, have a relatively simple system of relationship nomenclature.[1] Their grouping and use of kin terms, as well as the actual stock of primary words comprising these, accord most closely with the terminologies of neighboring Puget Sound Salish-speaking groups, and also resemble less closely but in a considerable number of features the systems of other southern Coast Salish peoples.[2] Relative to kin-term systems of interior Salish groups the Twana terminology shows notable differences.[3] These consist, in the Twana case, in use of a smaller number of primary terms, in consistent equating of relatives in the two parental lines, in a tendency to designate the younger members of plural-step relationships by a single term where the older members are accorded two (based usually on sex of person referred to), and in less extensive use of self-reciprocal terms and sex of speaker as distinguishing factors. In many respects the Twana system resembles that in use among English-speaking people to a greater extent than do the terminologies of most American Indian groups.

This system is clearly of the Salish type as defined by Spier, the distribution of which includes a solid block of Wakashan and Coast Salish peoples from the Bella Coola south to the Nisqually with one or two discontinuous cases such as the Yurok in northern California.[4] I have stressed its distinctness from the interior Salish systems, though Spier attributes three of these—Lillooet, Shuswap, and Spokane—to the Salish type. The Spokane are listed as doubtful. It is quite possible that the Lillooet and Shuswap represent Fraser River outliers of the coastal type, but the Spokane must certainly be removed from this category. Significantly, comparison of other features of Twana social organization

1 Data used in this paper were obtained during two field trips sponsored by the Department of Anthropology, University of California, in the summers of 1939 and 1940.

2 See Marion W. Smith, *The Puyallup-Nisqually* (Columbia University Contributions to Anthropology, vol. 32, 1940), pp. 173-178; A. C. Ballard, *Southern Puget Sound Kinship Terms* (American Anthropologist, vol. 37, pp. 111-116, 1935).

3 L. V. W. Walters, "Social Structure" (in *The Sinkaietk or Southern Okanagon of Washington*, L. Spier, ed., General Series in Anthropology, no. 6, pp. 71-100, 1938), pp. 88-90; William W. Elmendorf, *Spokane Kinship* (ms.); Harry Holbert Turney-High, *The Flathead Indians of Montana* (Memoirs, American Anthropological Association, no. 48, 1937), pp. 57-61.

4 Leslie Spier, *The Distribution of Kinship Systems in North America* (University of Washington Publications in Anthropology, vol. 1, no. 2), p. 74, and Plate 1.

with those of interior Salish groups shows no such divergencies as exist between their kinship terminologies.

For descriptive purposes Twana kinship terms can be conveniently divided into groups according to classes of relations; e. g., those between parents and children, those between parents' siblings and siblings' children, etc. Each of these relation groups may show different methods of designating the relatives concerned and different systemic patternings of these designations. When such differences between the various relation groups have been determined, extension of common features throughout the entire system becomes apparent.

In some kin systems a distinction between terms used in direct address and in indirect reference may affect the terminology. Thus in Northern Sahaptin[5] and in Wishram[6] different words are used when a term is "vocative" and when it is used referentially. Twana does not distinguish between different root forms of the same kin relation term in this way: linguistic devices for indicating direct address and reference lie outside the kin word. However, a number of terms indicative of relationship are not used in address but designate relations to a person or persons of such kind that they are only mentioned or described in discourse to a third person. These reference terms can be described separately as they do not form a system among themselves nor do they show the systemic characters of those terms used in both reference and address.

In the case of terms used in direct address to the relative a point worth note is that their use in this way is a sort of social stimulus evoking a response of the same kind. Personal names not being used in address,[7] the Twana employ kinship terms on every possible occasion. If one is addressed in a sentence in which occurs a kin term linking one with the speaker, one's reply will contain the appropriate response term. A child says, "What are you doing, my father?" The parent replies, "I'm doing so and so, my child." In actual social behavior-situations address terms nearly always occur in such reciprocal pairs.

In certain cases a single term is used reciprocally by both relatives. These cases are fairly numerous but the factors regulating such usage are not the same in every instance. These factors are best understood if we consider them in relation to the terminological features of all situations involving two relatives. Cases of reciprocal use of one term are then seen to involve a disposition to call

5 Melville Jacobs, *Northern Sahaptin Kinship Terms* (American Anthropologist, vol. 34, pp. 688-693, 1932).

6 Leslie Spier and Edward Sapir, *Wishram Ethnography* (University of Washington Publications in Anthropology, vol. 3, no. 3, 1930), pp. 262-264.

7 Except on such formalized occasions as presentation of a gift at potlatch.

a connection what the connection calls oneself[8] added to other factors which regulate all reciprocal term usage. The most important of the latter factors as determinants of term usage are: sex of person addressed, sex of speaker, parallel sex of speaker and person addressed, cross or opposite sex of speaker and person addressed, generation difference, relative age difference within the same generation. Within each group of relation terms one or more of these factors may operate, resulting in different types of systemic patterning in the various groups.

In the following list of Twana kin terms the principal traits have been indicated as: composition of relation group, terms, relatives designated by terms, sex of person addressed, relative age or generation of person addressed, sex of person speaking, relative age or generation of person speaking, reciprocal term combinations between person addressed and speaker. The systemic characteristics of each group of terms are then indicated, and shared features running through the entire terminology pointed out. Two final sections discuss the non-systemic reference terms and certain linguistic devices affecting the use of kin words.

A ADDRESS TERMS (USED BETWEEN TWO RELATIVES) [9]

Relation group	Term and relative designated	Sex of addressed	Age or gen.	Sex of speaker	Age or gen.	Reciprocal combinations
p-ch	1 ba´d (f)	male	o	either	y	1-3
	2 sk'o´i (m)	female	o	either	y	2-3
	3 bɑ´dɑ (ch)	either	y	either	o	3-1, 3-2
sb	4 tcɑ´t (ob)	male	o	either	y	4-5, 4-6
	5 su·k'wai (mn yb)	male	y	male	o	5-4
	6 a·lí c (mn yss, wn ysb)	either	y	either	o	6-4, 6-7
	7 tcɑ´c (oss)	female	o	either	y	7-6

8 A. L. Kroeber, *California Kinship Systems* (University of California Publications in American Archaeology and Ethnology, vol. 12, no. 9, 1917), p. 393.

9 Phonetic transcription of Twana terms follows the system recommended in *Phonetic Transcription of Indian Languages* (Smithsonian Miscellaneous Collections, vol. 66, no. 6, 1916). Because of typographical limitations the glottalized pressure-articulated fortis stop k with apostrophe above of the recommended scheme is printed here as k', glottalized p as p', and the postvelar voiceless spirant, properly x with period below, is printed as x.

Relation group		Term and relative designated	Sex of addressed	Age or gen.	Sex of speaker	Age or gen.	Reciprocal combinations
u, a-np, nc	8	ka´sⁱ' (p b)	male	o	either	y	8-10
	9	tca´p (p ss)	female	o	either	y	9-11
	10	słua·´lac (mn sb ch)	either	y	male	o	10-8
	11	stala´ł (wn sb ch)	either	y	female	o	11-9
	12	dusta·´ɪlbəd (dec p sb)	either	o	either	y	12-13
	13	sta´i'ɪł (dec sb ch)	either	y	either	o	13-12
gp-gch	14	si·´la (gf)	male	o	either	y	14-16
	15	ka´ya (gm)	female	o	either	y	15-16
	16	i´bats (gch)	either	y	either	o	16-14, 16-15
	17	t'ca´bä·qʷ (ggp, ggch)	either	y, o	either	y, o	17-17
	18	t'su´p'iä·qʷ (gggp, gggch)	either	y, o	either	y, o	18-18
h-w	19	kʷta·´bats (h)	male	—	female	—	19-20
	20	tcu'wa´c (w)	female	—	male	—	20-19
pl-chl	21	sxaxa·´' (sp f, ch h)	male	y, o	either		
					male	y, o	21-21
					female	y	21-22
	22	sa´pa (sp m, ch w)	female	y, o	either		
					female	y, o	22-22
					male	y	22-21
sbl	23	s'ya·´łtct (mn bl)	male	—	male	—	23-23
	24	sxʷsⁱ´xʷ (mn ssl, wn sbl)	either	—	either	—	24-24
	25	sk'we´t's (dec sb sp, dec sp sb, cross-sex)	male	—	female	—	25-25
			female	—	male	—	25-25

Relation group		Term and relative designated	Sex of addressed	Age or gen.	Sex of speaker	Age or gen.	Reciprocal combinations
misc. affinals	26	yɟe´l'αʙ (sp sb sp)	either	—	either	—	26-26
	27	qwe´lax" (sp pp, blood rel aff rel)	either	—	either	—	27-27
	28	cťca´yu (co-w)	female	—	female	—	28-28
	29	stcłba·´dab (a h, stf)	male	o	either	y	29-31
	30	stcłsk'u´yab (uw, stm)	female	o	either	y	30-31
	31	stca´łbadαb (sp np or nc, stch)	either	y	either	o	31-29, 31-30

B Discussion of Address Terms

1. *Parent-child group.* Terms 1, 2, and 3 symmetrically designate a set of inter-generation relationships in which only members of the older generation are terminologically distinguished according to sex of person addressed. Terms are exhaustive of the relationships involved and there is no extension to collaterals. Symmetry of the group is seen in Diagram 1.

2. *Sibling group.* Terms 4 to 7 indicate an intra-generation set of relations obtaining between children of the same parents. An assymetrical factor is introduced by restricting to a male speaker the distinguishing of a younger sibling according to his sex. Thus within the four terms used a man distinguishes his younger brother from his younger sister; a woman does not, using the man's term for younger sister (6) indifferently for any younger sibling. This usage results in only three reciprocal combinations among the four terms to cover four possible reciprocal relations:

(1) ob-yb   expressed by tcα´t-su·´k'wai
(2) ob-yss   "   " tcα´t-a·łí´c
(3) oss-yb   "   " tcα´t-a·łí´c
(4) oss-yss   "   " tcα´t-a·łí´c

Diagramming shows the arrangement in Diagram 2.
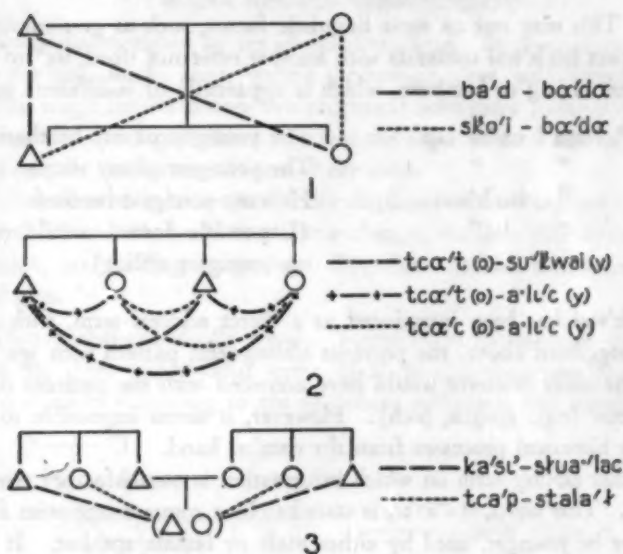
Fig. 1. Diagrams illustrating relationships (triangles, males; circles, females): 1, Parent and child; 2, Siblings; 3, Avuncular and nepotic relatives.

Parallel sex is terminologically distinguished from cross-sex usage only in the case of a male speaker. This has affected the entire system within the group of terms, in which symmetrical factors would be sex of person addressed plus age relative to speaker, resulting in four combinations of four terms. A tendency for males within a relation group to employ a distinctive term or pair of terms for each other has perhaps been at work here. It is also possible that the basic pattern is a three-term one (o male sb, o female sb, y sb), with a new pattern created by the addition of term 5 to express a special *male* relation (ob-yb). Term 5 (su´k'wai) affiliates with a reference term łsu´k'wai (su´k'wai of them) used of a youngest sibling of either sex:

dɨtca´dyəlwəs/ əti'isla'a˙´lɑc/łɨts/łsu´k'wai
which of them/ oblique thy younger siblings
(term 6)/ the feminine/ of them youngest one;
i.e., Which of your sisters is the youngest?

There seems a tendency, however, to restrict the term łsu´k'wai to males (youngest brother) when a feminine application is not demanded by the context,

as above. This may rest on some linguistic factor, such as grammatical gender. In this respect łsuˊk'wai contrasts with another reference word, uxʷtoˑˊlap, meaning youngest sibling or last-born, which is apparently of indifferent gender:

ti duxʷ huyaˊł uxʷtaˊlap			The youngest of my brothers
tsi "	"	"	The youngest of my sisters
ti "	"	łsuˊk'wai	He's my youngest brother
tsi "	"	"	(Impossible form: would mean, she's my youngest sibling)

If suˊk'wai has been introduced as a direct address term, with some such origin as suggested above, the previous sibling-term pattern with sex distinction only for the older relatives would have accorded with the patterns of other relation groups (e.g., gp-gch, p-ch). However, it seems impossible to determine the specific historical processes from the data at hand.

One other sibling term on which information is unsatisfactory remains to be mentioned. This word, syɨl'äˑˊtc, is stated to be a common-age term for brother, either older or younger, used by either male or female speaker. It is perhaps primarily a reference term, since use of the terms (4-7) which distinguish relative age of sibling is said to be "more careful and polite" in direct address. In the Transformer myth the term is used of Transformer's brother who originated from a piece of rotten wood substituted for Transformer when the latter was stolen from his cradle. There are also indications in the ethnographic data that it may be used for twin brother.

All terms of the sibling group are applied by extension to cousins in so far as any relationship can be traced. That is, they apply primarily to children of the same parents, by extension to children of siblings, grandchildren of siblings, etc. There is no separate term for cousin.

3. *Uncle-aunt-nephew-niece group.* These terms (8-13) are applied intergenerationally to parents' siblings and siblings' children; by extension to any collateral blood relatives of parents in the same generation and to any collateral blood relatives of true nephews and nieces in their generation. Four of the terms (8-11) are used during the lifetime of the connecting relatives (ps and sbs), two only (12, 13) after the death of the connective.

Terms 8 to 11, employed during the life of the connective, show a somewhat peculiar patterning. While the two older generation terms (8, 9) exhibit a characteristic lumping of collaterals of the two parental lines into two terms distinguished by sex of person addressed, the younger generation terms (10, 11)

are atypically distinguished by sex of speaker alone. In descriptive English the relations are thus uncle, aunt, uncle's nephew or niece, and aunt's nephew or niece. This usage results in only two reciprocal term-pairs (u-u np or nc, a-a np or nc), since the older generation relatives are distinguished terminologically by their own sex, the younger by the sex of the older.

These relations may be symmetrically displayed as in Diagram 3.

In terms 12 and 13, used after status change, the only distinguishing factor is generation, sex no longer figuring. Together the two terms form a single reciprocal pair.

4. *Grandparent-grandchild group.* Terms 14 to 16 show the same patterning as do the three parent-child terms (1-3) in distinguishing only the older generation relatives according to sex of person addressed and lumping younger

4

— — — si-'la - i'bats
·········· ka'ya - i'bats

5

— — — sxaxa⁴ (males)
— — — sa'pa (Females)
·········· sxaxa⁴ - sa'pa
(male-female)

6

— — — s'ya-'ltct
·········· sxʷsʟ'xʷ

7

— — — s'ya-'ltct
·········· sxʷsʟ'xʷ
—·—·— skwe't's
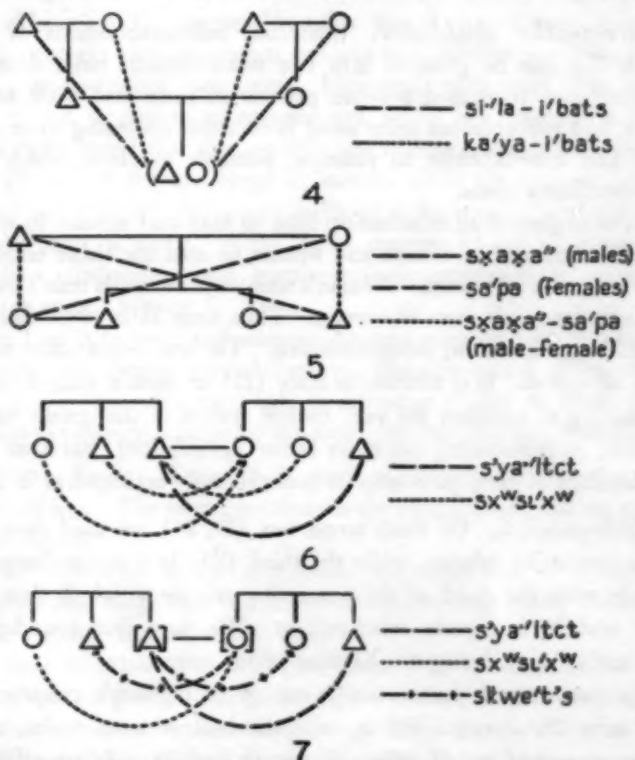
Fig. 2. Diagrams illustrating relationships: 4, Grandparent-grandchild; 5, Parent- and child-in-law; 6, Siblings-in-law; 7, Siblings-in-law after status change.

generation relatives under a single term. They resemble systemically the uncle-aunt-nephew-niece terms 8 to 11 in distinction of older relatives according to sex, and accord with these terms in usage by their extension to collaterals in the same generation. Lumping of maternal and paternal lines with only sex distinction (gf, gm) is another point of resemblance. Like terms 8 to 11 these form two reciprocal pairs in which, however, the only distinguishing factor is sex of older relative.

The relations are symmetrical as shown in Diagram 4.

Terms 17 and 18 are self-reciprocal and indicate only the relationship in each case. They are also extended to collaterals.

5. *Husband-wife*. Two terms (19, 20) exhaust the relationship as a single reciprocal term-pair. Sex of person addressed is the only distinguishing factor.

6. *Parent-in-law, child-in-law*. The four pair-combinations of these two terms (21, 22) can be grouped into two self-reciprocal pairs determined by parallel sex (same term used between persons of same sex) male and parallel sex female, and two cross-sex pairs using both terms according to sex of person addressed and criteria older to younger, younger to older, which determine order of constituent terms.

In this inter-generation relationship man to man and woman to woman each use a single term; man to woman and woman to man use either term according to the sex of person addressed. Woman's term to man equals man's term to man, and similarly for man's term to woman. Thus term 21 is father-in-law, son-in-law; term 22 mother-in-law, daughter-in-law. The one determinant factor is sex of person addressed. It is relation to male (21) or female (22) that is named. It is interesting to compare the very concise system in this group with English usage which, by introducing one more factor (generation), has four terms.

Relationships of term pairs may be symmetrically arranged as in Diagram 5.

7. *Siblings-in-law*. Of these terms two (23, 24) are used during the lifetime of a connecting relative, while the third (25) is a status-change term employed only after the death of the connecting relative at which time it replaces terms 23 and 24 in certain relationships. We may first consider usage of s'ya·ˊltct and sxʷsiˊxʷ during the lifetime of the connective.

In this case systemic factors assign one of four possible reciprocal relationships to term 23, distinguished as self-reciprocal between males, while three others are comprised in self-reciprocal use of term 24. Relationships involved are: •

(1) ss h - w b // sex male
(2) ss h - w ss X sex (through w)
(3) b w - h ss // sex female
(4) b w - h b X sex (through h)

Twana terminology includes three relations, nos. 2, 3, and 4, under the single word sxʷsɪ́xʷ, which might be defined as the term used between a sibling's spouse and a spouse's sibling *except* when both are males. With the exclusive male-sex-determined reciprocal use of s'ya·́ltct may be compared in the sibling group the use of the reciprocal pair tcɑ́t-suʔk'wai (4-5). Both instances show the tendency to make a special systemic case of a male-to-male relation within the relation group, and both result in an asymmetrical system as shown in Diagram 6.

With sk'weʔt's (25) compare the other two change-of-status terms, 12 and 13. In the present case generation can not and relative age does not operate as a factor to distinguish two terms. However, the present term is restricted in reciprocal use to persons of opposite sex, i.e., it is a cross-sex self-reciprocal term. It is to be noted that this use does not exhaust the relationships expressed by terms 23 and 24 before change of status. Only the *cross-sex* relationships (numbers 2 and 4 above), previously included in the term sxʷsɪ́xʷ are designated by the new term sk'weʔt's. After status change (death of connective) the sibling-in-law relationships are terminologically expressed in a symmetrical arrangement as in Diagram 7.

Under Twana levirate and sororate customs persons who become sk'weʔt's to one another are thereby potential or even probable mates. If marriage takes place the term is thereafter used only in reference ("used to be my sk'weʔt's") and its place is taken in address by the terms for husband and wife (19, 20).

8. *Other affinals.* Term 26 is used self-reciprocally between unrelated spouses of siblings. The term use exhausts the relationship, and sex and relative age do not figure.

Term 27 covers all affinal connections (consanguines of spouses, consanguine's spouse's consanguines) not included in preceeding terms. Self-reciprocity is the main systemic feature of the term.

With term 27 a plural or collective form (37) is connected as indicating affinal relatives as a group. Except on formal occasions, as a wedding feast, its use is probably most often referential; e.g., "We are qwǝl'qweʔlaxʷ to each other." This would be said of people whose sibling or child or grandchild has married speaker's sibling or child or grandchild.

For term 28 (co-w) it may be noted that when co-wives are sisters or other relatives the appropriate relationship term is used in address. The term is self-reciprocal.

Terms 29, 30, and 31 show social and semantic rather than systemic peculiarities. Systemically there is the common pattern of two relations distinguished by sex of person addressed in the case of older generation relatives, while the younger generation relations are lumped in a single common-sex term. The terminologic pattern thus follows that of certain other relation groups (p-ch, gp-gch). Extension of the terms to collaterals of the same generation is as in terms of the uncle, grandparent, and sibling groups.

The social status of the relatives designated is worthy of note. It seems peculiar that, in terminology, it is parents' siblings' *spouses* that are equated with step-parents, and similarly that spouses' nephews and nieces are equated with step-children. Under prevailing levirate and sororate usage the child of a deceased parent would frequently acquire a former *uncle* or *aunt* as step-parent, but the step-parent would much less frequently be a parent's sibling's spouse. This would, in fact, occur only under the statistically infrequent types of marriage: two brothers marry two sisters, or sister exchange (b and ss marry b and ss). However, when an uncle or aunt becomes a step-parent the terms in question go into effect in their meanings of step-parent, step-child.

Linguistic analysis of the terms seems to indicate that the step-relation meanings are primary (therefore perhaps original), but leaves their extension to the parents' siblings' spouse-spouses's niece and nephew relations unexplained. (For linguistic resemblances cf. terms 1, 2, and 3).

C REFERENCE TERMS

All the address terms given are also used with root form unaltered in indirect reference. In addition to terms 1-31 there are certain terms expressive of kin relations which are never used in direct address. These do not enter into reciprocal relation pairs as do the address terms, nor do they exhibit systemic patterning. These terms are of uncertain number and the class seems to shade off into mere descriptive words or phrases applied to relatives. I list those occurring in my notes:

32 t'cia·'lał, "the baby of the family." This is really an age term used as a relationship term to designate the youngest child in a family. It affiliates with a series of age (non-kin) terms:

aspᵃ't	Little baby, of cradle age (from ptᵃ'd, tie in cradle).

st'cia'łał	Child who has outgrown cradle age. In distinguishing sex the terms stiti'ˀbat, little man, and sła'ˀałdi, little woman, precede word; e.g., sła'ˀałdi t'cia'łał, little girl child. Distinct from term 32.
sbu'łats	Virgin girl, about age of puberty.
tctce'cəl	Boy about puberty.
sła'dai	Grown woman.
stiba't	Grown man.
astsədiˑ'lab	"In his prime." Attributive term applied to middle-aged man or woman.
aspu't.ł	Old person. Attributive term preceeding sła'dai or stiba't in indicating sex. Plural, asptpu't.ł. People are not called this in their hearing.

33 dux°li'ˀlatcł. Child of intermediate age relative to other siblings; neither oldest nor youngest sibling. There is a tendency to restrict the use to males.

34 si'tł'. Oldest sibling.

35 sdux°ba'ˀtəd. Term meaning any blood relative. Plural, sx°adɑ'x°bə'təd, indicates blood relatives (bilateral) as a group.

36 stcəl·a'. Family line (bilateral), ancestors.

37 qwəl'qwe'lax°. Plural of term 27. Persons to whom one is related by marriage of a blood kinsman or kinswoman. Blood relatives of an affinal relative.

38 bəb'a'dɑ. Diminutive of term 3, used in reference after child is grown to indicate deprecation.

D Linguistic Devices Affecting Kinship Terms

A few linguistic processes affecting the use of kin terms may be briefly noted.

1. *Expression of half-sibling relationship.* Referentially, persons having only one parent in common may speak of each other by a term derived from the kin term for the parent shared (m or f). Thus, s'iłba'd (cf. term 1) means

half-sibling by the same father; s'iłsk'o´i, half-sibling by the same mother. Sex of person referred to is indicated in these terms by gender of the possessive particle. In direct address sibling terms are employed.

2. *Teknonymic expressions.* There is an optional device for designating affinal relatives by a teknonymic phrase after the death of a spouse. This usage refers to the relationship of the affinal to the speaker's child or children, thus expressing consanguinal relation of relative designated to one's child rather than affinal relation to oneself. A wife's sister after death of the wife may be referred to (and must be addressed) by term 25, or by the phrase tca´pas tɪd bədba´dɑ, aunt of my children. Similarly, ka´sɪ's tɪd bədba´dɑ, uncle of my children, and si´las tɪd ba´dɑ, grandfather of my-male child, may be employed instead of the term qwe´lax" (27).

For husband or wife the same type of expression is optional during the life of the spouse and preferred after his or her death. If a couple had no children the widow would refer to her dead husband as "my deceased husband," and she might do so if there were children. However, in the latter case she would more probably say "the absent (or deceased) father of my-female child," if the child were a girl. If the husband were alive she might refer to him as "the present father of my children." A man would use the same type of expression of his wife.

3. *Expression of status change.* Beside the three terms (12, 13, and 25) which indicate change of relationship status incident to death of a connecting relative, there are linguistic devices applied to other terms (although these remain unaltered in root form) and which express change of status resulting either from the death of the relative referred to or from the death of a connective. These devices affect the form of the article or possessive particle accompanying the root term in ordinary speech. For example:

dɪt'ca´bä·q"	my ggf, living
łɪtstɪdt'ca´bä·q"	my deceased ggf
əłɪdt'ca´bä·q"	my ggm, living
łɑk"tɪdt'ca´bä·q"	my deceased ggm

Sex, or rather gender of the root word, with which sex may coincide, is also expressed in these possessive particles.

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SURVEY OF ARCHAEOLOGICAL REMAINS
IN NORTHWESTERN CHIHUAHUA[1]

ROBERT H. LISTER

THIS SURVEY was undertaken in 1936[2] at a time when a search was being made for the source of Chihuahua culture. The culture of Chihuahua had long been recognized as a component of the Pueblo pattern,[3] but whether it developed from a southern or northern influence was the problem. Our work revealed no Mexican traits in the area, and since then, the general picture has been developed like this: (1) Chihuahua's earliest pottery-making culture was derived from a source in southern New Mexico of Mogollon affiliation, then received influence from the Mimbres area of southern New Mexico, and later was affected by the southward expanding Salado from southern Arizona;[4] or, (2) that the early pottery-making culture came from a southern Mexican source and was later affected by the Mimbres and Salado.[5] In either case, the culture developed with influences from Pueblo peoples. It is hoped that excavations in the area can be undertaken soon to determine whether early influence was from the north or south.

The apparent lack of well-stratified sites in Chihuahua has been a drawback in archaeological investigations. No sites with refuse heaps of any consequence were located by our survey. Sayles mentions obtaining some stratigraphy, but then adds that further investigations are required to confirm the relationships suggested by present data.[6]

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1 A part of this article was originally published in the January 1939 issue of *Research*, a publication of the Graduate School, University of New Mexico, under the title of *A Report on the Excavation at Agua Zarca and La Morita in Chihuahua*. Since this publication has a very limited distribution, it is felt that the article can bear reprinting, and is here presented together with some additional information.

2 During two months of the summer of 1936, the University of New Mexico conducted a field session in anthropology in Chihuahua, Mexico. A group of twenty students, led by Dr Donald D. Brand, made the trip. Ten institutions were represented in the personnel of the party. For transportation four automobiles were used and a truck carried supplies. The session was devoted to the study of archaeology, natural history, and anthropogeography of the region. This report will deal only with the archaeological aspects of the session.

3 A. V. Kidder, *An Introduction to the Study of Southwestern Archaeology* (New Haven, 1924).

4 H. S. Gladwin in E. B. Sayles, *An Archaeological Survey of Chihuahua, Mexico* (Medallion Papers, no. 22, Gila Pueblo, Globe, Arizona, 1936).

5 Emil Haury, *The Problem of Contacts Between the Southwestern United States and Mexico* (Southwestern Journal of Anthropology, vol. 1, pp. 55-74, 1945).

6 Sayles, *op. cit.*

The relation between the cliff dwellings of the Sierra Madre Occidental and the sites in the valleys and in the inland basins was considered. We found that the cliff sites apparently were late developments and probably were built because pressure from other groups caused the Chihuahua people to retreat into the canyons of the mountains for protection.
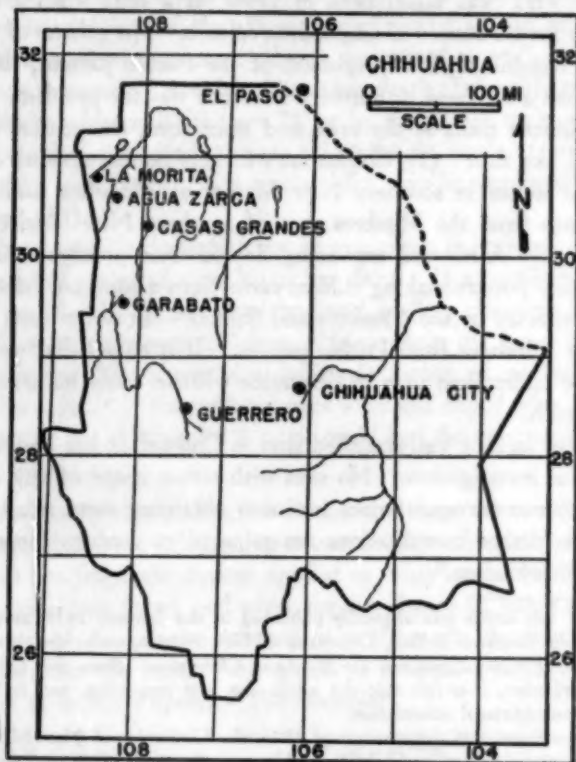
Fig. 1. Location of survey area, northwest Chihuahua, Mexico.

The first part of the survey trip was spent in visiting archaeological sites, making surface collections, and in general reconnaissance. The party travelled south from Ciudad Juarez to Chihuahua City, and then west to Guerrero. From Guerrero a trip into the eastern edge of the Sierra Madre Occidental was made. There, a week was spent in mapping and searching for cliff dwellings in the deep canyons of the Garabato and other rivers of the region. Leaving the Sierra Madre, the party travelled north into the Janos region, which is

located northwest of Casas Grandes. Stratigraphic investigations were carried on at two sites in that vicinity.

The principal work of the expedition may be divided into three phases: the Garabato survey, the excavation at the Agua Zarca site, and the excavation at La Morita site.

Our permit from the Mexican government allowed the collection of potsherds, stone, and shell material from the surface of archaeological sites, and also authorized us to carry on small stratigraphic excavations at sites in the municipality of Janos.[7]

The survey work on the Garabato River in the Sierra Madre Occidental was accomplished by sending small parties out from our camp to work the nearby regions. A number of ruins were examined, and some of them were mapped. The excavations carried on at the two mound sites consisted of running stratigraphic trenches. During the entire work, general field records were kept by all members of the party, with certain individuals having particular projects. This article is a synthesis of the work of the entire group.

THE GARABATO SURVEY

Location and physical landscape. The base for this survey was located about fourteen miles northwest of Las Varas, on the Garabato drainage. Las Varas lies at the western edge of the Babícora Plains, and in order to reach the Garabato one has to travel northwestward across the Sierra Madre Occidental. The summer of 1936 was the third successive dry season for that country, so the Garabato was not running at that time. Ordinarily, however, the Garabato flows into the Chico, which in turn enters the Papagochic, and finally the Papagochic joins the Rio Bavispe to form the Rio Yaqui.

This part of the Sierra Madre contains the most northern of the deep gorges or *barrancas*. Some of the canyons are over a thousand feet deep, having very steep walls into which numerous caves have been eroded. The flat-bedded volcanic tuffs of the region are especially amenable to the formation of caves. On the plateau and mesa tops, which are about 7,000 feet high, pine forests, oaks, and junipers are the common vegetation. The drier canyons contain oaks, junipers, agave, and madrones; in the moister canyon bottoms sycamores, elms, and maples grow.

The area covered by the survey included the canyons of the Garabato and
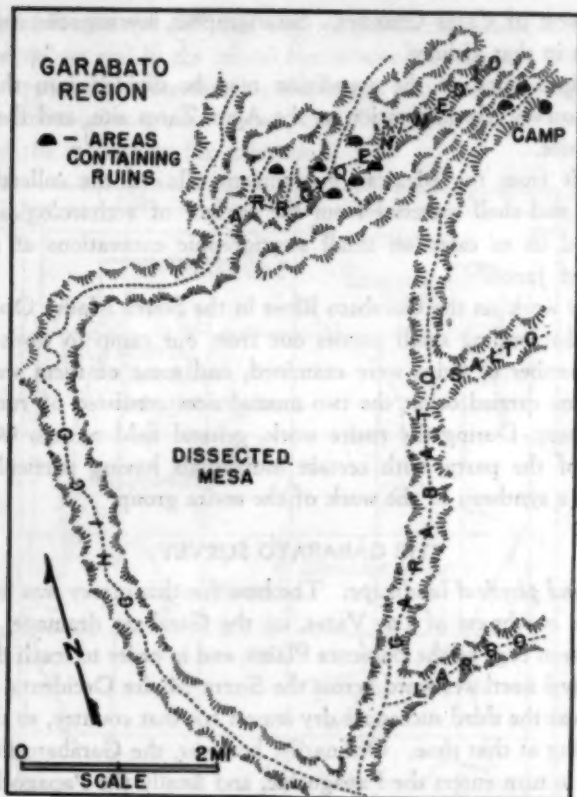
Fig. 2. Location of sites in the Garabato region, northwest Chihuahua.

Chico from their headwaters to their confluence, and the Arroyo en Medio which lies between the two rivers.

Previous work. Some of the ruins on the Garabato have been described or illustrated by earlier workers, including Lumholtz, Hewett, Carey, and Kidder.[8]

The ruins. As is the case with all Chihuahua ruins, the cliff dwellings have been pothunted to some extent; however, due to their inaccessibility they have

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8 C. Lumholtz, *Unknown Mexico* (New York, 1902); E. L. Hewett, *Les communantés anciennes dans le désert américain* (Geneva, 1908); H. A. Carey, *An Analysis of the Northwestern Chihuahua Culture* (American Anthropologist, vol. 33, pp. 325-374, 1931); A. V. Kidder, *Notes on the Archaeology of the Babicora District, Chihuahua* (in *So Live the Works of Men,* Albuquerque, 1939).

not been as vandalized as have most of the mound sites. All of the ruins located were either on the Arroyo en Medio or on the Garabato. The Chico in this section flows through a very steep-walled canyon which does not offer suitable places for building habitations. Eight ruins and several rock shelters were located on the Garabato. On the Arroyo en Medio fourteen sites were examined.

In general, the cliff dwellings were located some distance above the bottoms of the canyons, under overhanging rocks, in shallow natural caves, or in clefts in the rock. In size the ruins varied from a single room to a three-story structure with at least thirty rooms. The walls were usually of puddled adobe, but sometimes small boulders were set into the adobe. In other cases walls were constructed of vertical poles set closely together and plastered on both sides with adobe. A few walls showed a *jacal*-like structure, being made up of small vertical poles covered with horizontal sticks, and then plastered over with adobe. The walls contained many openings. Doors were of the step-passage, Tau-shape, and rectangular types.[9] Circular holes served as windows. Roofs were constructed of poles placed closely together and then covered with a thick layer of adobe. Sometimes split poles were employed in the roofs.

At none of the sites were large refuse heaps located. A small number of sherds were found, Playas Redware being the most predominant type. Babicora Polychrome and Casas Grandes Polychrome were also represented.

GARABATO NUMBER 1

This small ruin occupied a cleft in the rock, about 150 feet above the canyon bottom. The ruin was nicely built into the cleft, and contained three rooms, two on the ground floor and one above them. Walls were built of puddled adobe tempered with small pebbles and were about a foot in thickness. In several places the cave served as room walls, and it formed the ceiling of the upper room. Behind the two lower rooms there was a chamber formed by the back of the cave. A step-passage door led into the rear chamber. Rectangular openings occurred in these walls. The roof of the front lower room consisted of twenty-seven pine poles placed side by side, running from front to rear, and six poles running diagonally from the south wall of the cave. On top of the poles a thick layer of adobe was spread. This served as a floor for the upper room. The front wall of the upper room was built about a foot and a half back of the front wall of the lower room, creating a small second story balcony. The room

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9 Carey *(Analysis of Northwestern Chihuahua Culture)* distinguished between the step-passage and Tau-shaped doors. The term Tau-shaped is applied only to those large apertures which actually have a T-form.
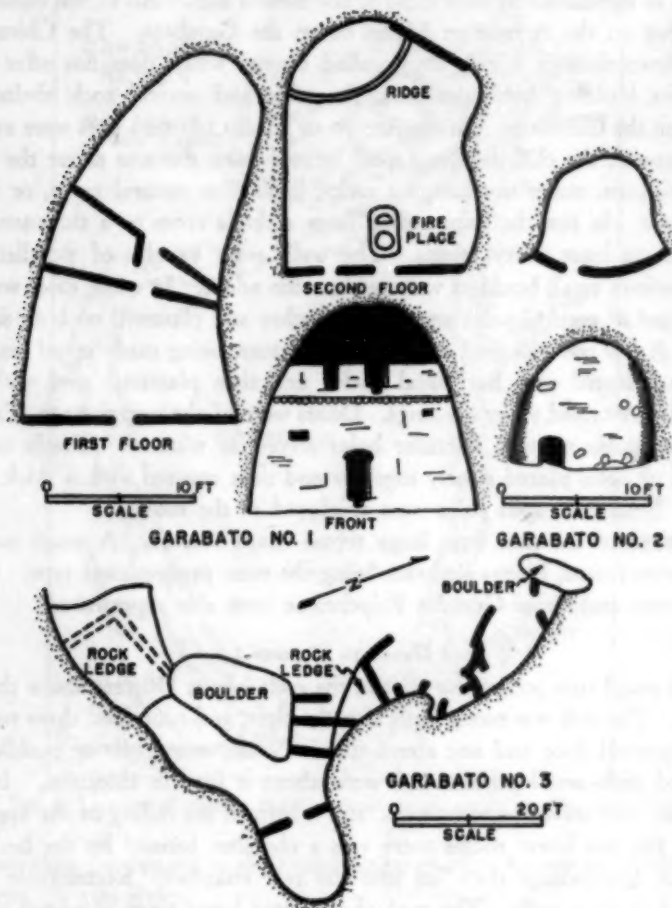
Fig. 3. Sketch plans and façade of Garabato cliff dwellings.

on the upper story had only one adobe wall, the front; the others consisted of the cave walls. In the front wall there were two doorways, one of the step-passage variety and the other rectangular in shape. The upper room contained a platform-and-depressed-basin type of fireplace made of adobe and a low adobe ridge, semi-circular in form, that cut off one corner of the room. A metate of basalt and three manos were observed in this site.

GARABATO NUMBER 2

This site consisted of a small cave, high on the face of the cliff, that had been walled up across the front. The adobe and stone wall was semicircular and curved in to meet the cliff face at the edges of the cave. The floor was very uneven. A small rectangular door was the only opening, and it appeared as though it had been made in the wall in rather recent times. This structure may have served as a granary.

GARABATO NUMBER 3

Because of the poorly preserved condition of this ruin not much information concerning it could be obtained. It was located in a shallow cave about fifty feet wide and approximately seventy-five feet above water. Within the cave, which contained a very irregular floor, there were several large boulders. Abutting against the boulders and cave wall were the remains of adobe walls; however, it was difficult to trace out any rooms. A rock ledge in the cave contained a number of depressions which appear to have been used as mortars.

GARABATO NUMBER 4

The protected ledge on which this ruin stood was about sixty feet long and twenty-five feet wide. It was located approximately four hundred feet above the canyon bottom. The cliff dwelling contained eight or ten rooms, but the outstanding feature of the ruin was a large granary perched on the edge of the ledge. The granary was about nine feet high and approximately six feet in diameter at the center, constructed of rolls of grass covered with adobe. Several wooden planks extended across the interior of the structure, their ends firmly set in the walls. These may have served as steps to get into the interior of the granary, or they may have been for support of the walls.

The rooms had puddled adobe and stone and adobe walls Both rectangular and step-passage doorways were employed. Roofs consisted of adobe laid on closely spaced poles. One center post supported a beam that ran across the short axis of a room, apparently for additional roof bracing.

GARABATO NUMBER 5

Just a short distance south of Garabato Number 4 was a shallow cave located about fifty feet above water. The cave was only twelve feet in length and seven feet in depth. In it were the remains of walls indicating the former presence of at least two small rooms.

GARABATO NUMBER 6

The ruin was little more than a rock shelter, made up of two adobe walls enclosing a small recess in the face of the cliff. One wall with three small
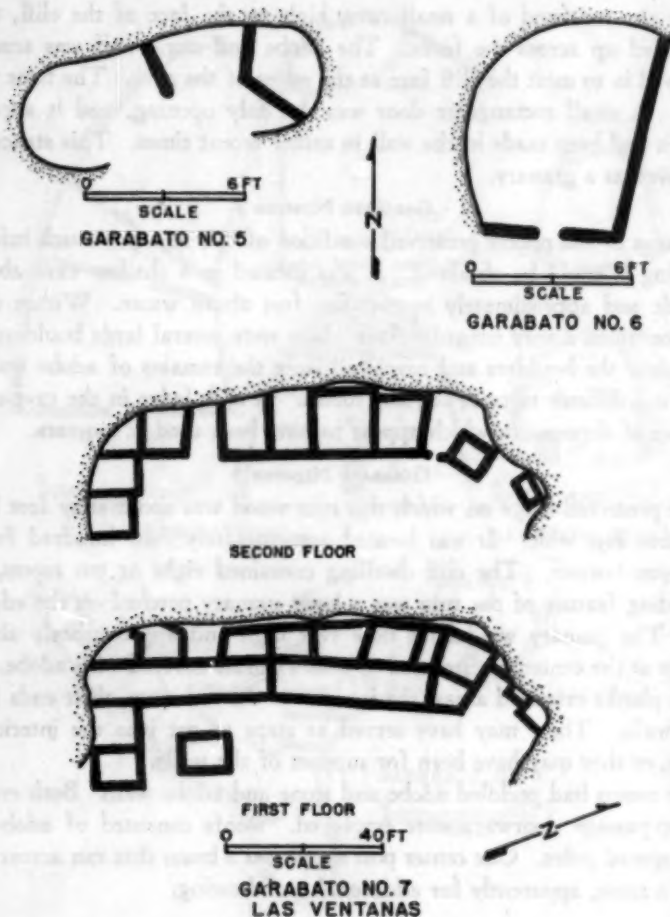
FIG. 4. Sketch-plans of Garabato cliff dwellings.

openings stood to a height of nearly eight feet. The other wall was badly broken down, but it had an opening that probably had been a rectangular doorway. The roof was completely destroyed. In the center of the floor was a rough spot where a beam-supporting pole may have rested. Two manos were found at this ruin.

GARABATO NUMBER 7

This was the largest site that we examined. It was built in a cave which was two hundred feet wide at its mouth, thirty-five feet deep, and was about eighty feet from the highest point on the overhanging cliff to the floor. The cave was reached after a steep three hundred fifty foot climb from the bottom of the canyon. This, the best known ruin in the region, had been examined by several other individuals.[10] The ruin possessed at least thirty rooms, many still in a good state of preservation. The front row of rooms probably was only one story in height. The back rooms, built against the cave wall, were two stories high, and from marks on the roof of the cave there appear to have been a few third-story rooms originally. The predominant type of wall was one of puddled adobe; but walls of adobe mixed with rocks, and walls of vertical poles plastered with adobe inside and out were also noticed. Walls varied in thickness from seven inches to fifteen inches. There were many wall openings. Doorways were of three types: Tau, step-passage, and rectangular. Small rectangular and circular wall holes were very numerous. One second-story room contained eighteen small rectangular openings, most of which had been sealed with slabs of wood. Because this room was so situated as to command all approaches to the cave, and if the openings had been look-out or loop holes, this room could very well have served as a watch tower. Floors were of hard packed adobe. Beams across which the roof poles were laid were supported by pillars of wood built into the adobe walls. In some cases an additional pillar had been set up in the center of the room to help support the beams. It was observed that most of the roof poles had a groove cut around them, several inches from one end. This groove might have been used in lashing the roof together, or a piece of fiber rope could have been tied in the groove and used in pulling the long poles up the steep incline to the cave during the construction of the roof.

Originally there were two long hallways extending partly across the front of the structure. Doorways opened into the hall from the front, and other doors led from the hallways into the back row of rooms. On one of the second story roofs at the north end of the structure were the remains of a large granary. The granary appeared to have been constructed in the same manner as that found in site Number 4. Sherds of Playas Redware, Babícora Polychrome, and Casas Grandes Polychrome were found.

These first seven ruins were all located within an area not over a mile long, and were all on the west side of the canyon.

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10 As has already been mentioned, Lumholtz, Hewett, Carey, and Kidder have described ruins on the Garabato: this site, Number 7, is the one that has been described most often.
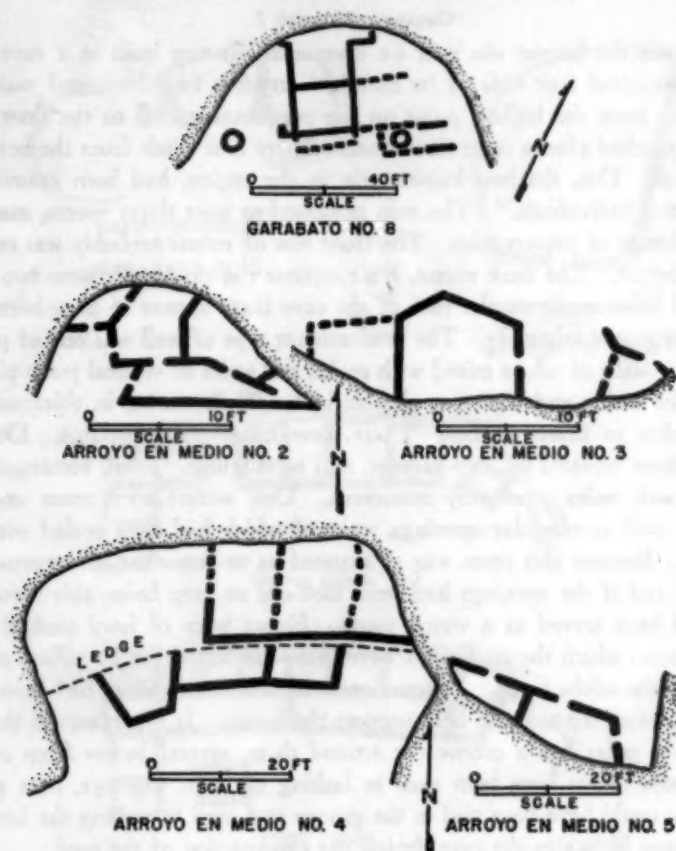
Fig. 5. Sketch-plans of Garabato and Arroyo en Medio cliff dwellings.

GARABATO NUMBER 8

This ruin was located about four miles south of the others, and it was situated in a cave in the east wall of the canyon.   The cave was about one hundred twenty-five feet above water, and it was ninety feet wide, thirty feet high, and forty-three feet deep.   Many of the walls, which had been made of adobe and stones, had fallen.   Parts of the walls of three rooms still stood, and there were indications of several other rooms.   In one place the wall was two stories high. There appeared to have been three granaries in the cave, only one of which remained.

As was the case with most of the cliff dwellings of the region, there were many wall openings. Doors were both of the rectangular and the step-passage types. Many small openings had been sealed.

Arroyo en Medio Number 1

This site was characteristic of a great many of the small ruins that are found in the Arroyo en Medio. It was a small one-room structure, six feet long and about four feet wide. The adobe walls were nearly all destroyed, and at their highest place stood only a little over three feet. The ruin was built under an overhanging rock twenty feet above the canyon bottom. The floor of the cave slanted toward the canyon at a fifteen-degree angle. Because the ruin was typical of many in this section only this one is described.

Arroyo en Medio Number 2

Wooden feed troughs, a pole corral, and a wooden corn cultivator indicated that this house had been recently occupied. The walls were in good condition with the exception of the front, which was sagging a little. The structure was built in a cave about thirty feet above the water. It contained five adobe-walled rooms, the front one possibly having been a hallway. The four rear rooms were built against the back of the cave, where the wall of the cave served as their rear walls. In one room, the floor at the north end had been raised a few inches above the general floor level, creating a platform. There was no debris on the floors; however, five sherds of Playas Redware were found on the slope in front of the cave. Rectangular doorways opened from one room to another.

Arroyo en Medio Number 3

Ruin Number 3 was situated in a cave in the south wall of the canyon, about fifty feet above water. The cave was some thirty feet wide at its mouth and had a level floor. The walls were only in a fair state of preservation, but the remains showed that four rooms had been built in the cave. Walls were made of vertical poles covered with smaller horizontal pieces of wood and then plastered with adobe. In some instances stones were set into the bottoms of walls, probably serving as foundations. The rooms contained no detritus; the only artifact found was a broken mano. Two doorways were seen, one of the rectangular type and the other Tau-shaped.

Arroyo en Medio Number 4

The cave which this structure occupied was about one-fourth of a mile down-stream from site Number 3, had two distinct levels, and was one hundred feet

above the stream. On the upper ledge there had been three rooms, but only one wall was standing when the site was examined. The lower tier of rooms, built just in front of the upper group, consisted of three fairly well preserved rooms. Walls were constructed of vertical poles, small horizontal wooden slabs, and adobe plaster. Roofs of the lower rooms were made by laying split pine poles side by side and covering them with a thick layer of adobe. Rectangular and step-passage doorways were observed. In one of the upper rooms, there were four small holes in the front wall. These openings may have been utilized as loop-holes; each one was placed at a different angle to cover all approaches to the cave.

Arroyo en Medio Number 5

The site, located opposite Number 2, was fifty feet above the stream in the canyon bottom. Two adobe-walled rooms had been built in a small cave in the face of the cliff. One step-passage and two rectangular doorways led into the rooms. Six small wall openings had been made, but four of them had been sealed up at a later date.

As our permit did not allow us to do any excavating in these sites, we were not able to examine many items of material culture nor any burials. The few potsherds found, as already pointed out, consisted of Playas Redware, Babícora Polychrome, and Casas Grandes Polychrome. Trough metates were common. In one case mortars had been ground into a large boulder in a cave. A few bits of fiber cord, corn husks, and yucca quids were discovered.

THE AGUA ZARCA SITE

Location and physical landscape. This large mound site was located fifty miles northwest of Colonia Dublán on the Arroyo Agua Zarca, seven miles above Los Ojitos. The elevation there is about 5,500 feet. Covering the ruin area and in the nearby country, the vegetation is composed largely of mesquite brush, cacti, flowering thistle, walnut trees, poplar trees, and grass.

The ruin. The ruin, consisting of three compounds stretching across the narrow valley of the Agua Zarca, was about six hundred fifty feet long. The long axis of the site lay in a northeast-southwest direction. It was three hundred feet across the site at its widest place. The arroyo almost cut into the southwestern portion of the ruin. Besides the three distinct compounds, there were several small outlying mounds. It is possible that the structure may have been two stories high in places, as some of the mounds stood eight or ten feet above the general ground level. On the surface trough metates, manos, arrow shaft polishers, and potsherds were found. From the surface collection of pot-
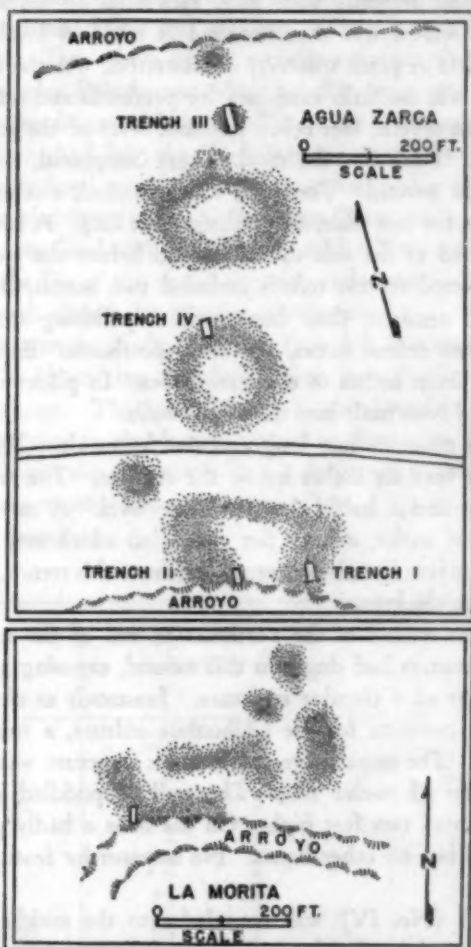
Fig. 6. Plans of the Agua Zarca and La Morita sites.

sherds the following types were identified: Playas Redware, Playas Red-Incised, Casas Grandes Polychrome, Babícora Polychrome, and Mimbres Black on White.

Agua Zarca was visited by Brand in 1931, but no scientific excavations were conducted until the University of New Mexico expedition worked there. Native pothunters had opened up several rooms searching for pottery.

Four stratigraphic trenches were dug, excavated by marking them off in sections, and each section was then removed in two-foot levels. The puddled adobe walls were left in place wherever encountered. As the dirt was removed from the trench, it was carefully examined for potsherds and artifacts. Trenches were extended down several feet below the floor level of the rooms.

Trenches I and II ran into the southwestern compound, extending from the arroyo well into the mound. Trench I, when finished, was approximately five feet six inches deep, ten feet wide, and eighteen feet long. A twelve-foot working platform was cleared at the side of the mound before the trench was started. The objects uncovered in this trench included two manos, three metates, one shell bead, a shell pendant, three bone awls, a polishing stone, an axe, four human burials, a few animal bones, and many potsherds. Exposed walls varied in thickness from seven inches to eighteen inches. In places there were indications that poles had been built into the adobe walls.

Trench II was nineteen feet long and ten feet wide. The floor level was approximately one foot six inches below the surface. The trench was carried down another foot and a half below the floor level. A metate, a mano, one bone awl, a piece of antler, a large flat stone slab which may have served as a bin cover, and one infant burial were recovered from this trench. Walls averaged about nine inches in thickness.

A small circular mound at the northeastern end of the ruin was tested by Trench III. Pothunters had dug into this mound, exposing a curved wall that appeared to be part of a circular structure. Inasmuch as circular rooms were not thought to be common for the Chihuahua culture, a trench was extended across the mound. The trench revealed that the structure was circular in shape and had a diameter of twelve feet. The wall of puddled adobe was sixteen inches thick and stood two feet high. On the floor a badly preserved skull of a child was found but no other bones. No noteworthy features were observed in the structure.

A short trench (No. IV) was extended into the middle compound. No walls were encountered, but potsherds, bits of adobe room material, and a metate were found. The compound consisted of a low circular mound one hundred seventy-five feet in diameter with a depression in the center. In view of the size, shape, and lack of room walls, it is conceivable that this could have been a ball court, although not enough actual excavation was conducted to prove or disprove the theory.

Pottery. Four whole pieces of pottery were recovered. Associated with the first burial was a Casas Grandes Polychrome olla. Decorations were in black

and red on a cream-colored slip. The black paint was rather faded and the red uneven, but the general effect was pleasing. There was a firing cloud on one side of the vessel. Two whole vessels were found with the third burial. One was a Casas Grandes Polychrome olla, and the other was a Playas Redware bowl. The olla was decorated in red and black on a creamy-buff slip. The red paint was well smoothed, but the black was raised in places. The surface of the Playas Redware bowl was fairly well smoothed and slightly polished. The other whole piece of pottery found at the Agua Zarca site was a Playas Redware olla, which was associated with the fourth burial. Two sets of holes had been drilled through the lip of the vessel opposite each other. A thong could have been passed through these holes to serve as a handle.

A stratigraphic study of sherds from Trench I showed the presence of six ceramic types. In identifying the sherds, they were divided into the six types, plus one other group. This other group included undecorated pieces of the polychrome wares; that is, sherds that carried no decoration but could be identified by their paste and slip as coming from polychrome vessels. The accompanying chart shows the number and percentage of the sherds of each type present in each level of the trench.

SHERDS FROM AGUA ZARCA

Types	Number of Sherds Stratum No.			Percentages Stratum No.		
	I	*2*	*3*	*I*	*2*	*3*
Playas Red	209	103	18	63	59	56
Playas Inc.	6	23	12	2	13	37
Ramos	21	5		6	3	
Babícora	2	9	2	.06	5	6
V. Ahumada	2	2		.06	1	
Casas Grandes	22	6		7	4	
Undec. Polychrome	68	25		20	14	
Total	330	173	32	99.2	99	99

Stonework. The most numerous of the stone artifacts recovered were trough metates. They were shaped from large blocks of vesicular lava and usually showed a good deal of working. Six specimens were found in trenches; four were observed on the surface of the mound. Two nicely worked stone blocks were found, into which no trough or groove had been worn, which apparently

had not been used. The average size of the specimens observed was: length, twenty inches; width, eighteen inches; height, ten inches. The trough in one specimen was six and three-eighths inches deep. Two small flat metates, resembling trays, were found. A mano was associated with one. So it is believed that they were used as metates, possibly for grinding pigments The two tray metates were about the same size. The smaller one was ten and five-eighths inches long, seven and five-eighths inches wide, and three inches high. A low wall surrounded the shallow groove that had been worn in the center of the utensils. Mortar. were made of small stones into which a circular depression had been ground. Manos were of the rectangular type and were worn on both sides. They were made of vesicular basalt and rhyolite. Several manos, round in shape, measured about four inches in diameter.

A crude axe, uncovered in Trench I, may have been an unfinished implement. The artifact had been pecked and ground into shape and a groove had been started on one side. The material of which it was made was a compact basalt. Pebbles were employed as hammerstones.

Shellwork. A shell bead and a small shell pendant were found in the excavations. The shells could not be identified.

Bonework. Parts of three bone awls were recovered. A piece of an antler which might have been used for working flint was found in Trench II.

Human burials. Burial 1: an infant burial, found one foot seven inches below the floor in the south corner of a room uncovered in Trench II. The bones were very fragile, badly disturbed, and many were missing. The body apparently had been placed in a sitting position; it appeared as though it might have been forced into a small hole. The knees were bent, and the position of the skull indicated that the head had rested on the chest. The vertebrae and ribs were scattered. The body was oriented southwest to northeast. A Casas Grandes Polychrome olla accompanied this burial.

Burial 2: a badly decomposed child's skull, found on the floor of the circular structure through which Trench III ran. No other bones accompanied the skull.

Burial 3: this burial, exposed in Trench I, was found eight feet below the surface and three feet beneath the floor level. The skeleton was that of a child not more than five years old. A few of the phalanges, vertebrae, long bones, and most of the calvarium were the only bones found, and were in poor condition. The burial had probably been disturbed by burrowing rodents. The body was

oriented in a southwest to northeast direction. It apparently had been placed in a sitting position with the hands folded over the thorax, and the knees slightly bent. The body had been wrapped in a simple checker-woven mat of vegetable fiber. The bits of matting were so badly decomposed that none were preserved. A Casas Grandes olla and a Playas Redware bowl had been placed with the burial.

Burial 4: only a few ribs and tarsals remained of this burial, that of an infant. A shell pendant was found with the bones. This burial was also found in Trench I at a depth of eight feet. The body had been placed one foot six inches south of an exposed wall, and about midway of its length. Because it was so fragmentary, its orientation could not be determined.

Burial 5: another fragmentary burial was found four and a half feet below the surface in Trench I. Only enough bones were present to indicate that there had been a burial. No information could be gathered from the remains.

Burial 6: in Trench I, at a depth of nine feet and beneath a wall, burial 6 was found—an adult, probably a female. The body had been placed in a sitting position, head bent forward, knees flexed, with hands crossed over the pelvis. It was oriented northwest-southeast. The skeleton was in poor condition; the bones were very fragile, and the ends of all the long bones had decayed. A few small bits of fiber matting indicated that the body had been wrapped in, or placed on, a mat. A small Playas Redware olla had been left by the right knee.

LA MORITA SITE

Location and physical landscape. La Morita site was about ten miles northwest of the ruin on the Agua Zarca and sixty-one miles from Colonia Dublán. The region was characterized by a vegetation of mesquite and grass, plus hackberry, flowering thistle, and cholla. The ruin was situated on the north bank of the Arroyo Carretas, five miles northeast of Manga Punta de Agua.

The ruin. The site, covering an area about three hundred seventy-five feet in an east-west direction and three hundred thirty feet from north to south, consisted of three large mounds and two smaller ones. The Arroyo Carretas, making a sharp turn at the southwest corner of the ruin, cut into one of the mounds, exposing several walls. In a few places, the mounds reached heights of six or seven feet. Potsherds were abundant on the surface of the site, and a few broken metates were noted.

La Morita ruin had been examined by Brand in 1931, but no previous excavations had been carried on, with the exception of some pothunting by natives.

Owing to the fact that we did not spend much time at this site, we were able to dig only one trench. This trench, which was twelve feet wide, extended thirty feet north from a point on the arroyo bank where the walls were exposed.

The walls characteristically were of hard puddled adobe, sometimes with the addition of rocks, and ranged in thickness from eight inches to twenty inches. Two wall openings were encountered: one, a rectangular door that had been sealed with two metates, and the other a step-passage doorway. When completed, the trench averaged six feet in depth, the bottom being two feet below the floor level. As at the Agua Zarca site, the dirt was removed from the trench in strata two feet deep. The dirt from each stratum was carefully examined for artifacts.

Pottery. Three whole vessels were recovered from La Morita. Two of them were of Playas Redware. One of these was a very poorly constructed olla, unpolished, and but slightly smoothed. The other red vessel was a miniature olla not over two and a half inches in height. The third piece, an olla of the Carretas type, was decorated in black and red on an orange-cream slip. The black paint was glazed.

The potsherds from the excavation at this site were worked up in the same manner as those from Trench I at Agua Zarca and the results are shown in the accompanying chart. It will be noticed that two wares appear here that did not occur at Agua Zarca, namely, Carretas Polychrome and Huerigos Polychrome.

SHERDS FROM LA MORITA

Types	Number of Sherds Stratum No.			Percentages Stratum No.		
	1	2	3	1	2	3
Playas Red	556	473	182	58	57	55
Playas Inc.	63	45	48	7	5	15
Ramos	87	61	24	9	8	7
Babícora	20	32	6	2	4	2
Carretas	14	19	7	1	2	2
Huerigos	8	12	4	.09	1	1
V. Ahumada	8	3		.09	.04	
Casas Grandes	39	40	17	4	5	5
Undec. Polychrome	165	142	41	17	17	12
Total	960	827	329	99.8	99.4	99

Stonework. Four metates from La Morita were examined. Three were obtained from the trench, the fourth from the surface. All were made of vesicular lava and were of the trough variety, but two had been fashioned from unshaped rocks. Two of the metates were found in such a position as to indicate that they had been used to seal up a doorway. Manos were of the rectangular variety. A full-grooved axe, made of a compact igneous intrusive rock, probably a gabbro, was recovered. The implement was rather slender, with the groove placed well back toward the blunt end. Several smoothing stones, which had been made from hard igneous rocks, were found.

Shellwork. Associated with an adult burial was a shell necklace. One hundred eighty-seven of the small Nessor (Electrion) shells used in the necklace were recovered. Each shell had a hole through one end for stringing purposes.

Perishable material. No work in bone was recovered. A few very badly decomposed bits of matting were found in association with two of the burials. The mats were of vegetable fiber, and the weave of one could be identified as having a herringbone pattern.

Human burials. The burials at La Morita were even more fragmentary than those at Agua Zarca. Indications of four burials were revealed in the trench. Generally the bodies were placed in a sitting position, with the head forward, the hands over the pelvis, and the knees flexed.

CONCLUSIONS

After comparing the material culture of the cliff dwellings with that of the open, or mound, sites, there seems to be more reason than ever for believing that both types of ruins are representatives of the same culture and probably existed contemporaneously, at least in part. The belief that the Chihuahua people abandoned their unprotected open sites, with the possible exception of such large centers as Casas Grandes because of the increased pressure from nomadic tribes and moved to the more protected canyon country of the Sierra Madre Occidental is borne out by our work.

A number of the architectural details found in the mounds were similar to those observed in the cliff dwellings. Doorways uncovered at La Morita were rectangular and step-passage in type. Although no Tau-shaped doorways were found at La Morita or Agua Zarca, they were uncovered by Carey in the Babícora district and were noted by Brand in Lumholtz' excavation on the headwaters of the San Diego. Thus, we find the same three types of doorways being employed in both cliff and mound sites. Walls constructed of adobe, rocks set

in adobe, and combinations of poles and adobe were used in the open sites as well as in the cliff dwellings. The platform-and-depressed-basin fireplace was noted by Carey and Kidder in mound sites in the Babicora area, and was frequently found in the cliff sites on the Garabato. The presence of watch towers in many of the cliff ruins would imply that an enemy situation existed and that protection was one of the foremost thoughts in the minds of the builders of the cliff dwellings. On the other hand, the large number of doorways in the cliff houses was not a protective feature, but this may be explained as a hold-over from more peaceful times when houses were erected in the open and contained many entrances.

On the Garabato the trough metate was dominant. This same type of metate was also characteristic of the La Morita and Agua Zarca sites.

Some similar pottery types occurred in the two classes of ruins. Playas Redware and Casas Grandes Polychrome were the principal wares that were found to be present in both types of sites. According to Sayles,[11] Playas Redware occurred throughout several phases of the Chihuahua culture complex and was not diagnostic of any particular phase. Casas Grandes Polychrome, however, is thought to be characteristic of the Ramos and Animas phases. The Ramos and Animas phases were relatively late developments in the area. If the cliff sites belonged to the Ramos or Animas phase, as is indicated by the presence of Casas Grandes Polychrome, they may also be considered late in the Chihuahua culture time table.

The time of the increased pressure by nomads on the Chihuahua people and the resultant abandoning of the unprotected sites with migrations into the rough canyon country may be placed between 1300 and 1400 A.D. These dates are determined by means of cross-finds of dated pottery, such as Gila and Tonto Polychromes, from the Salado area of Arizona in the Animas Phase of the Chihuahua culture. Gladwin states that at about 1350 the Salado people of southern Arizona abandoned their homes in the Tonto basin, the Gila basin, the Middle Gila, and the San Pedro and moved to the east and south. The main body of the people seemed to have moved into northern Chihuahua where they carried, or introduced, Gila and Tonto Polychrome, as well as other elements of Salado culture.[12]

At neither La Morita nor Agua Zarca were refuse heaps located. In fact, all of the Chihuahua sites seemed to lack extensive mounds of refuse. This

11 E. B. Sayles, *An Archaeological Survey of Chihuahua, Mexico; Some Southwestern Pottery Types: Series V* (Medallian Papers, no. 21, Gila Pueblo, Globe, Arizona, 1936).

12 Gladwin in Sayles, *An Archaeological Survey of Chihuahua, Mexico.*

may have been due to the fact that the culture developed, flourished, and declined in a short period of time. On the other hand constant pressure from enemy tribes may have made village life very unstable, and sites may have been abandoned frequently and new villages constructed.

In the refuse from excavated rooms a scarcity of animal bones was noted. This shows that the inhabitants of the sites depended primarily on agriculture for their food supply. The large number of metates and manos recovered also strengthens this belief.

Burial customs were similar at the two sites. Bodies were interred beneath room floors and walls. Normally the corpse was placed in a sitting position, knees tightly flexed, hands folded over the pelvis, and the head bent forward on to the chest. Orientation was northwest-southeast. The body frequently was wrapped in a fiber mat before burial. Pottery vessels usually accompanied burials.

Pottery from La Morita and Agua Zarca point to short periods of occupation for the sites. There are no appreciable differences in the pottery types from the lower and upper levels. Apparently the same wares were used throughout the lifetime of the villages. When comparing the pottery from the two sites several differences were noted. Carretas and Huerigos Polychrome were present at La Morita but absent at Agua Zarca. A greater percentage of Casa Grandes Polychrome occurred at Agua Zarca than at La Morita.

Stonework also points to a slight difference between the two sites. In general, workmanship and shape of the metates and manos of Agua Zarca were much superior to those of La Morita.

The sum of the evidence indicates that culture at Agua Zarca was more highly advanced than it was at La Morita. This may be because La Morita was more on the periphery of the area than was Agua Zarca, or there may be a difference in time.

A series of excavations in Chihuahua is needed to determine whether the theories that have been developed through studying collections and conducting surveys are sound. The possibilities for the location of early sites about the old inland basin areas are good. And caves in the Sierra Madre Occidental hold promise of well preserved archaeological material.

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REACTION TO DEATH AMONG THE MESCALERO APACHE

MORRIS EDWARD OPLER

BURIAL, MOURNING, AND PURIFICATION

A S SOON as a death occurred among the Mescalero Apache of New Mexico, the women of the encampment in which those related to the dead person lived began to wail. As a symbol of grief and despair relatives of both sexes tore the clothes from their bodies and threw them away. During the mourning period they wore only as much clothing as the weather and canons of modesty required, and always were clad in the poorest and most dilapidated garments at hand. Close relatives cut the ends of the hair with a flint knife or burned them off with a heated horse bone.[1] Adults trimmed the hair to shoulder length. Less hair was taken from children, and the hair of very small children was often left undisturbed. The cuttings were hung in trees.

As soon as a person breathed his last, close relatives who lived at some distance from the place where the death took place were notified at once and came to help prepare the body for burial. After guns were obtained by the Mescalero a relative discharged a gun into the air immediately after a death to notify the surrounding camps that a sick person had succumbed.

A few close relatives took charge of the body. They were ordinarily older persons, since the young are considered particularly vulnerable to the sickness that comes from contact with the dead. The hair and body of the deceased were washed and his hair was neatly combed. He was dressed in his finest clothing. The face and head of an older person who died was marked lightly with pollen. A cross of pollen might be traced at the forehead just above the bridge of the nose, for instance. The head and face of a young person who had suffered from a painful disease were entirely covered with pollen or red ochre. If this were done it was "thought that the disease would go away with him and never come back."

Burial was arranged as quickly as possible. If a person died in the morning he was sure to be buried the same day. Anyone who died in the evening was interred the next morning.

The horse or, if he had more than one, the favorite horse of the deceased

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[1] If a person was reported lost on a raid or warpath expedition, before cutting the hair and initiating the mourning practices the relatives waited four days in the hope that he would nevertheless return safely.

carried his body and as many of his possessions as could be transported to the burial site. The funeral party was small; only the few relatives absolutely needed for the task attended. The women of camps that were passed wailed to indicate their sympathy for the bereaved. Anyone encountered on the trail turned away, for it is callous and offensive closely to watch a funeral procession.

The burial site chosen was usually in the mountains or foothills of the mountains and always far from the places where the people ordinarily camped or lived. Graves varied in depth from two to six feet. The body, wrapped in a blanket, was laid extended with the head toward the west. Some of the personal property of the dead person was interred with him, and the grave was filled in with branches, grass, layers of rock, and earth. All the personal property of the deceased was destroyed. What was not buried with him was broken or burned near the grave. The horse which had brought his body to the burial site was destroyed near the grave. Properly, all the horses of the dead should be killed, but when the animals were badly needed in the local group a compromise was effected. Then some of the horses were spared, but their tails were trimmed as a symbol of their association with death, and they were given to "outsiders," for no Mescalero would retain the property of his dead relative. Often the recipients were individuals who, though they were under no strict obligation to do so, had showed particular kindnesses to the bereaved family, such as attendance at the funeral or assistance with the burial or with the disposal of property.

So that "no ghost would bother" them, the members of the burial party, before they began their return journey, traced an imaginary cross on their person with "ghost medicine" (sage—*Artemisia filifolia* Torr.) and placed the plant on the grave. Graves were never revisited. "We didn't want to be reminded of the dead person," said a shocked informant who was queried on this point. Anyone so aberrant as to return knowingly to a burial place was suspected of witchcraft.

Those who prepared the body or participated in the burial discarded the clothes in which they were dressed when performing these tasks and bathed and cleansed themselves thoroughly.[2] Again it is terror over the ghosts that acts as the spur. "We do it out of fear," I was told. "If you just go out and don't cleanse your body or put away the clothes, the ghost might bother you; it might have transferred itself from the body to you at the moment of contact."

The Mescalero, as many of the practices already described suggest, think

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2 Despite the fact that the dead were interred in a modern cemetery, in 1933 and 1934 gravediggers at Mescalero were still throwing away the clothes in which they were garbed while engaged in their task.

that ghosts are at best dangerous and frightening and often deliberately malignant. These shades make every effort to remain in the company of those with whom they were closely associated in life, and they strive to return to familiar places and to retain the possessions they once used. Failing this, they seek to draw the living to the land of the dead. Consequently, though ghosts are a threat to all those they encounter or single out for attention, it is the relatives of the deceased, those who must attend the body and who are inevitably associated with the affairs and property of the departed, who are primarily endangered. The hasty burial and the many precautions of relatives already listed were the responses to the anxieties felt.

The practices mentioned to this point, however, are a mere beginning. At the camp of the mourners all the property of the dead person which could not be carried to the grave was destroyed. The possessions of others or general household possessions which the deceased may have handled frequently were likewise discarded.[3] Even the dwelling, unless it was a new one, was abandoned. In most instances a new campsite was selected. The move did not have to be far or in any particular direction, as long as the spot associated with death was left behind. No one could be persuaded to continue to use what had been owned and "soiled" by the dead person. Such a course would invite memories about the departed, and induce bad dreams and the attentions and visits of the ghost. Moreover, as an informant bluntly put it, "The one who uses a person's property after his death is regarded as a witch."

One of the substances that the ghost likes least is ashes. Therefore, on the evening after a burial, family members put ashes at their ears and foreheads. Even when the adults did not do this, it was always done for the children, who are thought to be more susceptible than adults to "evil influences." When there was any fear that ghosts would invade the camp, a line of ashes was drawn at the door. Extremely nervous individuals put ashes around their beds in addition. A cross of spittle traced on the forehead was thought by many to be efficacious for the same purpose. Another device for keeping away ghosts or dreams of ghosts was to place a black flint (later a black-handled knife) under the pillow. To avoid dreams about ghosts it was essential that moccasins and headgear be

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3 This practice still continues into the modern period. One day during July, 1933, I was informed that a child of one of my Mescalero friends had died. Later in the day I saw this man driving up the road with a wagon full of household goods. He was taking these possessions, associated with his boy, out to be burned. Possessions of the slain enemy, including clothes, were put to use, however. If a garment taken from the enemy as booty had blood on it, red ochre had to be put on that spot before it could be worn.

not placed above or under the pillow or near the head of the bed at night. Small white shell beads, found at ancient Pueblo sites, especially in ant hills, were strung on a buckskin thong and were worn around the neck to keep away "darkness" or ghost sickness. "We always looked for them in the early morning hours and in the evening," I was told. "They hide during the day. Like living things they come out in the morning and evening. When it is damp after a rain you can find them, too."

Incensing with the smoke from burning sage or "ghost medicine" (*Senecio filifolius* Nutt.) is another prophylactic against ghosts, one inevitably employed by the members of a newly-bereaved family. Said a Mescalero in explanation of its benefits: "If any member of your family dies you burn 'ghost medicine' and put all the members of the family through the smoke. If nobody in your family died but you handled a body, you do it for yourself anyway. You do this so the ghost won't cause evil influence over you.[4] It's just made for that purpose. I don't know just how it prevents the ghost from harming you, but it is recognized that it does. It's the odor that keeps the ghost away. When people are out of their senses from ghost sickness this is burned and they inhale the smoke. The smoke scares the ghost away, too. This plant can be boiled, and a tea made from it can be drunk also." Cudweed (*Gnaphalium decurrens*) was thrown on the coals or used in pillows to discourage ghosts or dreams of ghosts.

Besides the positive measures taken to prevent a visit from the ghost, various restrictions were observed for the same reason. Whistling at night was said to bring ghosts and was condemned, especially when a death had lately occurred. Putting a knife under the fingernails or toenails at night was said "to draw" ghosts and was also discouraged. Children were warned not to pick their teeth at night unless they wished to risk an encounter with a ghost.

The removal from sight or mind of anything which might remind the living of the dead extended to all references to the deceased or mention of his name, as well. Relatives take immediate offense if the name of their dead kin is called; if the remark is critical of the departed a fight is sure to be precipitated. An inter-family feud of which I have an account and which cost seven lives began when a remark in bad taste was made about a dead man. As a combined result

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4 "Ghost medicine" was constantly being gathered and used by Mescalero during the period of my field-work. For example, a Mescalero friend directed my attention to a rather young and "progressive" woman gathering plants in a field, with the remark, "See that woman gathering 'ghost medicine'? That's L's wife. I never thought she would do that. I guess something must have scared her last night."

of the fear on the part of relatives of recalling the ghost, and of the precautions of others to prevent insulting or grieving the family of the dead, various means have been developed to avoid the calling of the names of the deceased. If the name does have to be uttered, a phrase meaning "who used to be called" must be added. Ordinarily a way out is found in such oblique references as "The first daughter of T," or "The one who used to be J's wife." Even to seem to use the name of a dead person was dangerous and irritating to relatives. If the one who died was named after the word for a common object, for some time afterward a synonym or descriptive equivalent was used in speaking of it, especially in the presence of the relatives of the deceased. Thus when a prominent Mescalero named nà·cílí' (Cow) died, cows were referred to solely by another term ('ìyáné') for some years. When another well-known figure named Besohn (from the Spanish word *peso*) died, the Spanish term *dinero* was substituted for *peso* in general speech. Time, birth, and new generations soften this restriction some-what. One man explained that he felt more inclined to mention the name of his dead father-in-law again since "there's a child between us now." The child to which he referred was his own daughter, the grandchild of the dead man.

Death conditioned attitudes toward the names of the living as well as those of the deceased; new names were usually bestowed on children of a bereaved family. This practice also, though the logic is a bit strained, was said to prevent the image of the departed from arising to grieve and frighten his kin. "The dead person used to call the children by the old names and if those names were used now, it would remind the people of the dead person," was the explanation offered.

Because of their susceptibility to ghost sickness and because of their obligation to brook no insult to the memory of their dead, the feelings and wishes of relatives of the recently deceased have to be considered in all matters. While I was carrying on my investigations among the Mescalero a woman protested strenuously against the choice of a certain site for a great public rite. Her relative had died near the spot. Her objections were disregarded and the ceremony was performed there. A participant in the social dances became ill and later died. Many assumed that the infuriated relative, who had a rather unsavory reputation, had utilized sorcery to avenge the insult, and serious trouble was narrowly avoided.

Death concepts regulated ceremonies in other ways as well. If a ceremony was in progress when a death in the vicinity occurred, the rite was immediately halted, the ceremonial gifts were returned by the shaman, and the ritual began again after a four day waiting period.

Anxiety lest any reminder of the dead be sought or used is extremely acute. On one occasion, in order to obtain permission to take a very old Mescalero woman's picture, I induced a younger person with whom she was on good terms to ask her to pose. When he put the request to her the old woman turned on this hapless man and demanded, "What do you want to do, look at a ghost after I am gone?" Protests and explanations were of no avail, and we obtained no photograph.

What have been described are the usual Mescalero mourning, burial, and purification practices at the time of a death. It should be mentioned, however, that panic over contact with the dead is much diminished and mourning practices are considerably relaxed when it is a very old person or an infant who has died. The evidence suggests that fear of persecution by the ghost is most acute where there was a sharp clash of wills immediately before the death and that therefore the anxiety is markedly reduced when the deceased had become so old that he no longer "counted" in practical decisions, or was so young that there was no recognition of a social personality that might feel rancor or animus. In fact a blessing may be asked of the aged while they are dying or at death, for association with the symbols of extreme age is thought to insure longevity for the young:

When a real old person dies, the younger ones who bury him put branches of trees or fruit or pollen on the grave and say, "May I grow old."

When a person is very, very old, we refer to him as "ripe." When he is dying or dead, relatives mark him with pollen and wish for old age for themselves. If he is old like this they are not afraid to handle him. Then they are not afraid of his ghost. They used to destroy the property of an old person, but they didn't have to cut the hair for him or mourn.

The same thing is true of a little baby. Most people won't mourn for a baby unless it was a year or so old before it died, unless it came to the age where it knew what it was doing.

THE AFTERWORLD

The Mescalero conception of life after death is one of an underground paradise. If the ghost journeys there promptly and is satisfied to forget all about his former life and haunts, no sickness or evil influence need be feared. Of the land of the dead an informant has said:

The afterworld is called "earth below" (nì·gòyà·). After you die you go to this country. The place is under the ground. If you get killed you come to life down there. Life down there is just as it is here. The Indians are doing the same things down there as they used to do here.

A more detailed and idyllic picture of the inhabitants and activities of the afterworld was given in these words:

They say that when you die it is like falling off a high cliff. You fall and fall off into space and eventually you light easily on the floor of a beautiful valley. Here are many tipis, many people, all the friends you have known in your life, laughing, hunting, eating, having a good time Life there is much like life here on earth, except that it is better. Everyone keeps his earthly appearance but there is more food and the women are more beautiful. The valley has many trees and is surrounded by high cliffs. The people who live there never die.

The Mescalero explain that they know the facts concerning the afterworld so well because persons among them who have hovered on the brink of death but who have recovered were able to approach close enough to the underworld to determine its characteristics. A typical story of this kind is the following:

In the old days a certain Mescalero man was very sick. He was more dead than alive. His heart was beating faintly. He found himself at the edge of the underworld and saw all the Indians who are living down there. He was struggling to keep from getting in there. He stayed out of there, recovered, and told us what he saw. They live according to the old Indian ways down there, he said. He saw some people coming back from a war party when he was there.

THE GHOST, THE OWL, AND DARKNESS SICKNESS

In spite of the pleasures and plenty of the afterworld the Mescalero clings to this life persistently and desperately. It will be remembered that in the story just recounted the man who tottered on the edge of the underworld strove resolutely to remain out of it. But against this will of the living to remain on earth is pitted the ghost of the departed seeking to draw him to the land of the dead. From this opposition of aims grow the fears and forebodings of the living. The dead are their enemies, always suspected of trying to shorten their stay on earth. The living feel particularly vulnerable and helpless in this matter, for the ghost is a foe most difficult to oppose; the ghost is capable of working from the grave, of using night for cover, of appearing in a dream, or assuming protean forms, and even of utilizing sound or thought as instruments for his persecutions. Where conflict in everyday affairs existed between the departed and the living, fear of the ghost becomes excessive and debilitating.

In accounting for the ravages of ghosts it is assumed, of course, that the dead are outraged when their possessions are not destroyed, when mourning for them is lax, or when they are referred to disrespectfully. It is also agreed that they tend to linger about the grave (especially for the first four days after death) and strive to return to familiar sights and sounds and companions. But for much

of the malignant role of the ghost the Mescalero have no clear explanation. Said one of my most thoughtful informants on this point: "At death the ghosts of the dead go under ground. They have a special place there. It appears like that is the end for the dead. It makes no difference whether they have been good or bad in life, they go to the same place. Yet ghosts may come back to do harm. I don't know why ghosts come back at all, whether it is revenge or not. All I know is that there has to be a special ceremony for cases where a person has seen a ghost."

Ghost experiences are relatively common and of immediate morbid interest to all who hear of them. I had not been among the Mescalero long when someone came to me in considerable excitement and informed me, "I saw a ghost last night."

Sometimes it is suspected that ghosts are encouraged by witches to visit the living and sicken or craze them. The conclusion of an account of witchcraft, feud, and attempted murder which I recorded ended with this reflection, "I don't know if this sickness the witch sent was ghost sickness, but it looked like it, for those who have ghost sickness usually go crazy. It's one of the ways they work."

There are many ways in which a ghost can make his presence known to man. When a girl began to walk in her sleep her relatives explained, "A ghost is walking her around. We'll have to get a ghost shaman to sing over her." Sometimes an otherwise inexplicable track may betray the presence of a ghost. During the winter a man and his son noticed the footprints and handprints of a child in the snow near their isolated cabin. Because there were no children living near this spot they became suspicious and followed the trail. According to the tale they told, the tracks led to the mountains and to a grave.

On some occasions only the voice of a ghost is heard. More commonly the victim sees a dark, amorphous shape which finally assumes generalized human form. Rarely are the features discernible when the ghost approaches in this manner; if such an experience occurs in a dream the sleeper usually wakes in terror before the identity of the ghost is revealed. Such dread visits are not uncommon. "Did you ever have a nightmare and couldn't move, or yell, or fight?" asked a Mescalero. "Well, that's a ghost. If you see a hideous something in your sleep that is going to harm or kill you, it's a ghost."

To see a ghost in human form is extremely bad fortune and is "a pretty good sign that a person is going to die soon," though this fate may be averted by a shamanistic ceremony. Consequently Mescalero have been known to faint of fright when they believe they see a ghost approaching. Stories to stir appre-

hension are plentiful. One account tells how a man and his wife went after water together at dusk. There was just enough light to distinguish a human form. As they neared their camp they saw what appeared to be a man and woman enter'it. They hurried to their home, but when they looked in no one was there. They decided that the visitors must have been ghosts. The next morning the camp was raided and these two people were killed. The presence of the dread visitors had been a sign that their days were numbered.

Not infrequently ghosts reveal their identity, and a severe sickness is the least that can be expected when the ghost is this bold and open in its attack. A Mescalero who claims to have been saved from death by prompt ceremonial action gave this account of the disaster: "Before I was sick I was walking upstream. When I got near a bridge I saw dead people that I knew. Before they could cross the bridge as they were coming toward me I fainted and that's all I remember. It seemed to me just a day that I was sick and out of my head, but it was eighteen days."

A physical deformity of a Mescalero man was explained by this story:

He saw his own brother who had been dead a long time coming toward him riding on a horse. He himself was on foot. His dead brother tried to rope him, and as he threw, this man fainted and didn't know what happened after that. He was not found until the middle of the night. They brought him to a tent. The shaman they hired knew little about ghosts but they had to use him for there was no one else around. They held a ceremony and in four days the man was up, but now he was cross-eyed. Before that his eyes were all right.

While those who actually see and recognize dead relatives and friends are occasionally saved by ritual means, in most cases this kind of an experience is a harbinger of death:

If a person gets to seeing visions, gets so that he sees old friends and relatives coming back to him in the evening and appearing at the door of his tipi, he will not last long. If he sees the forms of dead friends or relatives appearing to him it means that they are calling him to the other world. My own father got to seeing visions of this sort and died within a few months after they started.

A similar tale is told of a woman who was summoned to the land of the dead by her husband's ghost:

I have heard that the relatives come to get those who are dying or who are going to die. Like R's wife. She was well, there was nothing wrong with her. Her husband had died. Then she said that in a dream she saw him coming on his bay horse. She was glad to see him. He told her to ride double and they rode off together. She explained this dream to all her relatives. She told her daughters that her time was up and she had to go. She didn't last long after that.

Another tale of a fatal encounter with ghosts involves the eating of food offered by them. This is significant, for he who eats the food of the people of the afterworld must journey to that land:

There was a man over at Elk. He rode over to the Elk store. Then he was coming home with another man. He saw a fire in a canyon. He told his friend that he saw this fire and many people. He wanted to go over there. The other man hung back. He didn't see anything and didn't want to go. So the first man went over there alone. His friend watched him from a distance. He saw him standing there all alone with his horse. But when he got back he told his friend that he had been at a big fire, eating with some people who had died. "I ate with some ghost people and some others who are not yet dead. They eat the same food we do. I guess I won't last long," he said. That night this fellow and four others who he had said were at this fire eating with him were killed in a fight. This man was shot down as he came in, though he was not drunk. No living person who had not been at this fire in his vision was killed.

The death of a well-known Mescalero in an accident is also traced to a ghost experience which he is said to have had shortly before the mishap: "N saw his dead mother the day he went down to get the freight. She followed him down to Tularosa. She came up to him and said, 'You've had enough life on this earth. You'd better come home with me'."

There is still another way in which the ghost can return to persecute the living and that is in the form of an owl. Consequently the owl is one of the most feared and hated of animals to the Mescalero and there is always the suspicion that someone who has too much knowledge of the owl or undue interest in this bird may be a witch. Of the owl a Mescalero explained:

We are afraid of it and never touch it. We don't ever want to hear it around close to camp. When the owl calls we say, "That man is already dead and comes back. He turned to owl." We shoot in that direction to chase it away. We don't want to hit it; we just want to scare it away. Most of us are afraid to keep owl feathers. They say a man is a witch who does it. A few keep the feathers that it loses or that they get from it and use them in ceremonies. These are the people who know the ceremony of the owl. They claim that a person that knows the supernatural power of the owl can drive bad dreams and ghosts away. Either they use the power this way or they are witches and sure killers in another way. Some say that a man who knows owl is sure to know some witchcraft.

Dislike of talking about the owl or of thinking about this bird is so general that it is difficult to obtain organized and consistent views concerning its attributes and its precise relation to death, ghosts, and witchcraft. Said one of my best informants in explaining his vagueness and his haste to leave the subject:

I am not sure if the owl is a bird to begin with and is possessed later by the ghost of a man, or a spirit or ghost to begin with. We avoid the owl as much as possible. We don't try to explain. It's very unpleasant to us. We don't try to go into details. We just leave it that the owl is no good, that it fools around in the night time and does evil. In the ghost ceremony the owl is mentioned; he is called upon to let the sick person alone. No Mescalero kills an owl or has use for the feathers unless he has a ceremony from the owl.

There is no more solid belief among the Mescalero than that messages, often warnings of impending death, can be clearly heard in the hoot of the owl. A story typical of those told to substantiate this is the following:

We know that owl and ghost are connected because the owl talks like an Indian and tells you who he is. One day a woman and her daughter went off from the main camp. While they were away troops came and the place became a battleground. An owl came close to the spot where these two women were staying that night and said, "I used to be one of your relatives." It said this over and over to them. The woman suspected that one of her close relatives had been killed somewhere. Sure enough, next morning she heard that her son was killed.

The illness which comes from contact with the dead, the grave or the possessions of the deceased, from dreams of the dead, or from persecution by the ghost is called "ghost sickness" or "darkness sickness." The latter designation is most commonly used and is preferred, not only because of Mescalero reluctance to mention the ordinary term for ghost, but because the concept of darkness is associated in a number of ways with the malady. The ghost usually appears or strikes at night; it uses the body of the owl, the bird of night and darkness, for its ends; the first materialization of the ghost is ordinarily a black, menacing shape; and ceremonies to combat the designs of the ghost are always conducted under cover of night. Occasionally such sickness was attributed to the activity of the ghost of a slain enemy, but by far the largest share of such trouble was traced to the efforts of dead tribesmen.

If the usual precautions taken after a death to keep the ghost at a distance fail, it is necessary to obtain the services of a shaman who has a special ceremony to control the ghost, the owl, and darkness sickness. Most of this rite is a related sequence of prayers, songs, and manipulations of sacred objects and substances, which has been obtained as a power grant from Owl in an individual supernatural experience. While there is a common pattern to all these ceremonies, each rite shows individual departures in minor matters, as well. For instance, "one woman who used the ceremony of the owl sang very low and quietly. She said that was the way her power wanted her to do it."

The circumstances in which it is wise to appeal to a shaman who can cope with "darkness sickness" was described by a Mescalero as follows:

When you have seen a dead body you may begin to get nervous and frightened. You begin to shake. You have what they call "darkness sickness." Then you go to a person who knows how and he will perform a ceremony over you and give you specular iron ore. [Note the use of a black substance as medicine.] He grinds it up and you take it through your mouth in a drink. That helps you.

The special susceptibility of children to the assaults of ghosts is noted by another informant who urged ceremonial defenses:

Children get sick easily from ghosts. If children get frightened from the dark all the time we know they have this sickness and we get a certain woman around here who is a shaman for this. The word for such sickness is "darkness sickness." After being cured by this woman they don't get sick like this again; she is the one who cures all the children around here when they get like that. One of the things she does to make them better is to burn a plant [sage] for them.

The essentials of the treatment of ghost sickness were described in a story told to me about a famous shaman who knew, among other things, a ceremony that originated in a power experience with Owl. A woman who was said to be "in bad shape" because "the ghosts had her" was brought to this religious practitioner. He explained that his ceremony could be conducted only at night and carried on the rite for her for four nights. Each evening he marked her body with pollen and stuck a black-handled knife in the ground in front of her. (Note again the use of a black object.) Then followed prayers and songs. Occasionally he stopped to make a noise in her ear and to blow the sickness away to the four directions. During the singing he gave the woman an owl feather to hold.

Because of the accelerated heart action that fright and anxiety occasion and the paralyzing and weakening effects of an encounter with a ghost, in an effort to translate "darkness sickness" into English and modern medical terms the Mescalero often now describe it as "heart disease." After the death of children, grief-stricken mothers are frequently said to be suffering from heart disease. When the treatment for the complaint is witnessed, it turns out to be a variety of "darkness sickness" ceremony. An Apache friend who had lost a child said that he would not be able to leave for his sheep camp because his wife was ill with "heart trouble." It was soon obvious that a ceremony was in the offing. An old woman with supernatural power derived from the owl carried on a ceremony for two nights over the bereaved woman. Before the shaman

began her work she requested a ceremonial payment of a black-handled knife and a cigarette from the patient's family. The knife was placed before the patient during the rite and the cigarette was used for initial ceremonial smoking. The patient was placed with face to the east, and sage was dropped in a black pan containing twelve hot coals. Blankets covered the basin and the patient so that she would be thoroughly bathed in the smoke which arose, and she was urged to inhale deeply. After this, charcoal was rubbed sunwise about her body, and prayers for her recovery were uttered. I was assured that this ceremony was performed to protect her from "darkness, the bad part that bothers a sick person in the form of a body."

When tragedy struck another family with which I was acquainted, the woman, as her husband put it, "went down with a broken heart." Her pulse was erratic, and she suffered periods of hysteria and abnormality when she recognized no one and a stick had to be held in her mouth to prevent her from biting her tongue. Possibly feelings of guilt accentuated the fear of the ghost in this instance. The small son of the family had managed to wander to a nearby stream and had drowned. Relief in ceremony was sought for this woman too.

THE SORORATE-LEVIRATE

Mescalero residence after marriage is matrilocal, and a Mescalero man whose wife dies is expected to remain with his relatives-in-law and continue his obligations to promote their economic welfare and safety. This gives these people an excellent opportunity to watch the conduct of the widower and to make certain that he mourns as solemnly as he should. At the death of his wife a man's ties to her family become stronger and more inflexible than ever before. He is said to be 'ícá to these relatives-in-law, that is, to be at their complete disposal in respect to future marriage arrangements. The ideal form of remarriage is the sororate: if the family is satisfied with the man as a provider and respect him, after the mourning period is over they will offer him the hand of a sister or cousin of his dead wife. It is felt that a substitute of this relationship would be sure to be devoted to the man and especially kind to any children of her kinswoman. The plan permits settled habits of economy and residence to continue. Such a proposal must be accepted by the widower and he would be an outcast in Mescalero society if he refused to comply. If the dead woman's family do not care to retain the services of the man, they simply take no action. After waiting a reasonable length of time the widower respectfully asks for his freedom, gives a present, and leaves for his parents' home or to marry elsewhere. The 'ícá responsibility is sternly enforced, for, with the woman who linked the

man to the family dead, this custom is the sole remaining force to insure to the group that has been depending on him, the man's, continued support and aid.

Although a widow does not live with her husband's kin, the 'icá understanding, this time in levirate form, applies equally to her. Relatives of her husband are just as determined that she mourn properly, and they can appoint a brother or cousin of the dead man to take his place in marriage. The widow must accept the decision. It is only when her dead mate's family have no suitable husband for her or make no move to choose a partner for her that she can request her freedom and make independent arrangements to remarry. During the mourning period the relatives of the dead husband watch and listen for any evidence that the widow has been showing disrespect to the memory of the dead by loose conduct or an early interest in social events. If they learn that this is the case, they may descend upon her in wrath and scold and beat her or even cut off the tip of her nose in punishment.

It is interesting to speculate upon what these extremely strict attitudes of the families of the dead toward the widows and widowers represent psychologically. As we have seen, there are strong feelings of guilt and anxiety in respect to dead kin among the Mescalero. It is not unlikely that there is an unconscious effort to project these feelings and that the ready victim is the stranger from without who has entered the family at marriage. By holding affinal relatives to all observances these kin are saying in effect to any ghost which may be contemplating persecution: "See, we were loyal and good to you, and even now we are protecting your memory from the slightest blemish."

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ERRATUM

Page 36, last line, of I. Schapera: *Some Features in the Social Organization of the Tlôkwa (Bechuanaland Protectorate)* should read "Brother's son's daughter" instead of "Brother's sister's daughter."

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